

# SURVEY OF HOSPITAL FACILITIES IN VIRGINIA



REPORT OF THE  
DEPARTMENT OF HOSPITAL SURVEY AND CONSTRUCTION  
VIRGINIA STATE HEALTH DEPARTMENT



RICHMOND

Division of Purchasing and Printing

1947



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VIRGINIA STATE HEALTH DEPARTMENT

*Virginia, Dept. of Health, Division of  
Hospital Survey and Construction*

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LETTER OF TRANSMITTAL

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Richmond, Virginia

TO THE HONORABLE WILLIAM MUNFORD TUCK  
GOVERNOR OF VIRGINIA  
RICHMOND, VIRGINIA

Sir:

In compliance with an Act of the General Assembly of Virginia,  
passed in January 1947, I have the honor to transmit herewith a  
report which includes an inventory of the existing hospitals in the  
State, a survey of the need for, and a suggested plan for the construc-  
tion of additional hospitals. This report has been approved by the  
State Hospital Advisory Council.

Respectfully,

L. J. ROPER, M.D.,  
State Health Commissioner

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LETTER OF TRANSMITTAL

Richmond, Virginia

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PAULINE E. BARRINGTON.....*Field Representative*  
H. H. CHAPMAN.....*Field Representative*

Respectfully,

L. J. ROYER, M.D.,  
State Health Commissioner

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## CONTENTS

|                            | PAGE |
|----------------------------|------|
| Letter of Transmittal..... | iii  |
| Introduction.....          | xiii |

### Chapter I

|                                                                                                         |         |
|---------------------------------------------------------------------------------------------------------|---------|
| The People of Virginia—Social, Economic, Geographic and Health Factors Related to Hospital Service..... | 3       |
| Population.....                                                                                         | 3       |
| Number of People.....                                                                                   | 3       |
| Where People Live.....                                                                                  | 3       |
| Density of Population.....                                                                              | 4       |
| Composition of Population—Race, Age and Sex.....                                                        | 4-5     |
| Recent and Prospective Population Changes.....                                                          | 5-6     |
| Births.....                                                                                             | 35      |
| Infant and Maternal Mortality and Stillbirth Ratios.....                                                | 40-41   |
| Infant Mortality.....                                                                                   | 40      |
| Maternal Mortality.....                                                                                 | 40-41   |
| Stillbirth Ratios.....                                                                                  | 41      |
| Births in Hospitals.....                                                                                | 49-50   |
| Deaths.....                                                                                             | 61      |
| Deaths in Hospitals.....                                                                                | 62      |
| Economic and Social Factors.....                                                                        | 84-86   |
| Standards and Levels of Living.....                                                                     | 96      |
| Hospital Prepayment Plans.....                                                                          | 101-102 |
| Transportation and Communication Facilities.....                                                        | 106     |
| Summary.....                                                                                            | 113-114 |

### Chapter II

|                                         |     |
|-----------------------------------------|-----|
| Health Service Personnel.....           | 117 |
| Practicing Physicians in the State..... | 117 |
| Graduate Nurses.....                    | 124 |

### Chapter III

|                                           |         |
|-------------------------------------------|---------|
| The Existing Hospitals of Virginia.....   | 133     |
| General and Allied Special Hospitals..... | 133-173 |
| Nervous and Mental Hospitals.....         | 175-177 |
| Tuberculosis Sanatoria.....               | 177-180 |
| Public Health Centers.....                | 180     |
| Chronic Disease Hospitals.....            | 185     |

## Chapter IV

PAGE

|                                                               |         |
|---------------------------------------------------------------|---------|
| Basic Consideration in Estimating Need for Hospital Beds..... | 189     |
| Formula for Estimating Need for General Hospitals.....        | 189     |
| The Bed-Death Ratio.....                                      | 188-189 |
| Variations in the Ratio.....                                  | 189-    |
| Use of the Bed-Death Ratio in Virginia.....                   | 189-190 |
| Application of the Formula.....                               | 190-191 |
| The Bed Occupancy Rate in General Hospitals.....              | 191-    |
| The Normal Occupancy Rate.....                                | 191-192 |

## Chapter V

|                                                             |         |
|-------------------------------------------------------------|---------|
| Summary and Recommendations—The State Plan.....             | 197     |
| Policy for Determining Non-conforming General               |         |
| Hospital Beds.....                                          | 198     |
| General Hospital Recommendations by Region and Area.....    | 202-221 |
| Mental Hospital Recommendations.....                        | 224-227 |
| Policy for Determining Non-conforming Tuberculosis          |         |
| Sanatoria Beds.....                                         | 225     |
| Recommendations for Tuberculosis Sanatoria.....             | 225-227 |
| Recommendations for Chronic Disease Hospitals.....          | 229     |
| Recommendations for Public Health Centers.....              | 229-231 |
| Establishment of Priorities for General Hospital Areas..... | 233-235 |
| Summary Statement.....                                      | 238     |

## Chapter II

|                                         |     |
|-----------------------------------------|-----|
| Health Service Personnel.....           | 117 |
| Practicing Physicians in the State..... | 117 |
| Graduate Nurses.....                    | 124 |

## Chapter III

|                                           |         |
|-------------------------------------------|---------|
| The Existing Hospitals of Virginia.....   | 133     |
| General and Allied Special Hospitals..... | 133-173 |
| Nervous and Mental Hospitals.....         | 172-177 |
| Tuberculosis Sanatoria.....               | 177-180 |
| Public Health Centers.....                | 180     |
| Chronic Disease Hospitals.....            | 182     |



## LIST OF TABLES

| TABLE<br>NUMBER | TITLE                                                                                                                                                          | PAGE  |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| 1               | Population, Urban and Rural, Virginia, 1900-1940, Showing Percentage Increases over Previous Censuses and Percentage Distribution.....                         | 8-9   |
| 2               | Population by Color, Urban and Rural, Virginia, 1920-1940 Showing Percentage Increases over Previous Censuses and Percentage Distribution.....                 | 10    |
| 3               | Population of Virginia Counties, Including Independent Cities, 1930, 1940, and 1943, and Percentage Changes 1930-40 and 1940-43.....                           | 11-13 |
| 4               | Total Population, Percent Non-White, and Population Per Square Mile, Virginia Counties, 1940 Tabulation Sheet Virginia Counties.....                           | 18-20 |
| 5               | Estimated Civilian Population, Virginia, July 1, 1945.....                                                                                                     | 22-24 |
| 5-A             | Estimated Civilian Population of Places 2,500 to 10,000.....                                                                                                   | 25    |
| 6               | Age Trends by Color and Sex, Virginia, 1900-1940.....                                                                                                          | 27    |
| 7               | Percent Population in Major Age Groups, Virginia Cities and Counties, 1940.....                                                                                | 30-32 |
| 8               | Number of Children Ever Born Per 1,000 Women 15 to 49 Years Old, Standardized for Age of Women, Urban and Rural, Virginia, 1940 and 1910.....                  | 35    |
| 9               | Live Births Per 1,000 Population, by Color, Virginia Cities and Counties, 1939-40.....                                                                         | 36-38 |
| 10              | Infant and Maternal Mortality Rates and Stillbirth Ratios, by Color, Urban and Rural, Virginia, 1944.....                                                      | 41    |
| 11              | Infant and Maternal Mortality Rates and Stillbirth Ratios, Virginia, 1917-1945.....                                                                            | 42    |
| 12              | Infant Mortality Rates, by Color, Virginia Cities and Counties, 1941-1945 Inclusive, and Differences above or below State Rate.....                            | 43-45 |
| 13              | Births and Percentage of Births in Hospitals, Urban and Rural, Virginia, 1937-1944.....                                                                        | 50    |
| 14              | Percent Births in Hospital, by Color, Urban and Rural, Virginia, 1942, 1943 and 1944.....                                                                      | 51    |
| 15              | Births and Percent Births in Hospitals, by Color, Urban and Rural, Virginia, 1944.....                                                                         | 51    |
| 16              | Births and Percent Births in Hospitals, by Color, Virginia Cities and Counties, 1939-1940 and 1944-1945, Showing Percentage Change in Births in Hospitals..... | 52-57 |
| 17              | Percent Births in Hospitals and Percent Births Attended by Midwives, by Color, Virginia, 1945.....                                                             | 60    |
| 18              | Rank Order Among States, Crude and Age-Adjusted Death Rates, White and Non-White, Virginia, 1940.....                                                          | 63    |
| 19              | Deaths Per 1,000 Population, White and Non-White, United States and Virginia, 1920-1940.....                                                                   | 63    |
| 20              | Deaths Per 1,000 Population, by Color, Urban and Rural, United States and Virginia, 1940.....                                                                  | 64    |
| 21              | Deaths Per 1,000 Population, by Age and Color, United States and Virginia, 1940.....                                                                           | 65    |
| 22              | Deaths Per 100,000 Population from Selected Causes, by Color, Virginia 1920-1940.....                                                                          | 66-68 |
| 23              | Deaths Per 100,000 People by Principal Cause, by Race, Urban and Rural, Virginia, 1944.....                                                                    | 69-70 |
| 24              | Deaths Per 100,000 Population, by Color, Age and Principal Cause, Virginia, 1940.....                                                                          | 71-72 |



## LIST OF TABLES—Continued

| TABLE<br>NUMBER | TITLE                                                                                                                                                                                                                                                                      | PAGE    |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 25              | Age-Adjusted Death Rates from 8 Leading Causes of Death,<br>Virginia, 1940.....                                                                                                                                                                                            | 73      |
| 26              | Deaths Per 1,000 Population, by Color, Virginia Cities and<br>Counties, 1944-45.....                                                                                                                                                                                       | 74-76   |
| 27              | Crude Death Rates Per 100,000 Population from Selected Causes,<br>U. S. and Virginia, 1945.....                                                                                                                                                                            | 78      |
| 28              | Number of Deaths and Percentage of Deaths in Institutions,<br>Urban and Rural, Virginia, 1937-1944.....                                                                                                                                                                    | 78      |
| 29              | Resident Deaths in Hospitals, by Color, and Percent of Total<br>Resident Deaths Occurring in Hospitals, Virginia Counties,<br>Including Independent Cities, 1945.....                                                                                                      | 79-81   |
| 30              | Estimated Per Capita Income 1945 and 1940, Estimated Per<br>Family Income 1945, Average Monthly Wages, First Quarter,<br>1946, of Workers in Industries covered by Social Security,<br>and Percent of Farm Operators with Gross Farm Incomes<br>under \$600, Virginia..... | 87-90   |
| 31              | Per Capita Estimated True Value of Locally Taxable Wealth,<br>Virginia Cities and Counties, January 1, 1944.....                                                                                                                                                           | 91-92   |
| 32              | Rural Level of Living Indexes, by County, Virginia, 1940.....                                                                                                                                                                                                              | 97-99   |
| 33              | Blue Cross Enrollment, Virginia, July 1, 1946.....                                                                                                                                                                                                                         | 103     |
| 34              | Blue Cross and Medical and/or Surgical Plan Enrollment, Blue<br>Cross Plans, Virginia, April 1, 1947.....                                                                                                                                                                  | 103     |
| 35              | Population Served by Blue Cross Plans and other Non-Profit<br>Plans, and Percent of Population Enrolled in Hospital and<br>Medical Plans, Virginia, 1946.....                                                                                                              | 104     |
| 36              | Enrollment, Persons Hospitalized, Days of Hospitalization and<br>Amount Paid Hospitals and Surgeons, Farmer's Health<br>Assn., Dec., 1946 and Jan. and Feb., 1947.....                                                                                                     | 105     |
| 37              | Percentages of Farm Dwellings without Automobiles and<br>Telephones and 0.3 to 5 Miles and over from Nearest All-<br>Weather Road, State and Counties, Virginia, 1945.....                                                                                                 | 107-109 |
| 38              | Employee Bed Ratio by Size Groups.....                                                                                                                                                                                                                                     | 117     |
| 39              | Practicing Physicians by Counties and Cities, 1947 and 1942,<br>Showing Increase or Decrease and Population Per Physician.....                                                                                                                                             | 119-123 |
| 40              | General and Allied Special Hospitals Showing Percent Patients<br>from Local Community (City and County), Average Patient<br>Stay and Percent Occupancy.....                                                                                                                | 127-131 |
| 41              | Existing Public Health Centers & Local Health Services.....                                                                                                                                                                                                                | 180-184 |
| 42              | Priority in Category of General Hospitals Met Need Adjusted by<br>Utilization of Existing Facilities.....                                                                                                                                                                  | 236-237 |

## LIST OF CHARTS

| CHART<br>NUMBER | TITLE                                                  | PAGE |
|-----------------|--------------------------------------------------------|------|
| 1               | Population of Virginia by Residence, 1900-1940.....    | 7    |
| 2               | Population by Color, Virginia, 1920-1940.....          | 10   |
| 3               | Population Changes in Virginia, 1930-1943.....         | 14   |
|                 | Figure 1, Increase, 1930-1940.....                     | 14   |
|                 | Figure 2, Decrease, 1930-1940.....                     | 15   |
|                 | Figure 3, Increase, 1940-1943.....                     | 16   |
|                 | Figure 4, Decrease, 1940-1943.....                     | 17   |
| 4               | Age Trends of the Population, Virginia, 1900-1940..... | 28   |
|                 | Figure 1, White Population.....                        | 28   |
|                 | Figure 2, Non-White Population.....                    | 29   |

## LIST OF MAPS

| MAP<br>NUMBER | TITLE                                                                                                                                         | PAGE |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1             | Population Per Square Mile, Virginia Cities and Counties, 1940.....                                                                           | 21   |
| 2             | Percent Non-White of Total Population, Virginia Cities and<br>Counties, 1945.....                                                             | 26   |
| 3             | People Under 15 Years of Age, Virginia Cities and Counties, 1940....                                                                          | 33   |
| 4             | People Over 65 Years of Age, Virginia Cities and Counties, 1940.....                                                                          | 34   |
| 5             | Live Births Per 1,000 Population, Virginia Cities and Counties,<br>1939-1940.....                                                             | 39   |
| 6             | Difference Above or Below State Infant Mortality Rate, Virginia<br>Cities and Counties, 1941-45, Inclusive.....                               | 46   |
| 7             | White Infant Mortality Rates, Virginia Cities and Counties,<br>1941-1945 Inclusive.....                                                       | 47   |
| 8             | Non-White Infant Mortality Rates, Virginia Cities and Counties,<br>1941-1945 Inclusive.....                                                   | 48   |
| 9             | Percent Total White Births in Hospitals, Virginia Cities and<br>Counties, 1944-45.....                                                        | 58   |
| 10            | Percent Total Non-White Births in Hospitals, Virginia Cities and<br>Counties, 1944-45.....                                                    | 59   |
| 11            | Crude Death Rates Per 1,000 Population, Virginia Cities and<br>Counties, 1944-45.....                                                         | 77   |
| 12            | Percent White Deaths in Hospitals, Virginia, 1945.....                                                                                        | 82   |
| 13            | Percent Non-White Deaths in Hospitals, Virginia, 1945.....                                                                                    | 83   |
| 14            | Estimated Per Capita Income, Virginia, 1945.....                                                                                              | 93   |
| 15            | Percent Farm Operators With Gross Farm Income Under \$600,<br>Virginia, 1944.....                                                             | 94   |
| 16            | Average Monthly Wages Per Worker in Industries Covered by<br>Unemployment Compensation, Virginia Cities and Counties,<br>Jan.-Mar., 1946..... | 95   |
| 17            | Rural Level of Living Indices, Virginia, 1940.....                                                                                            | 100  |
| 18            | Percent Farm Dwellings 0.3 to 5 Miles and over from Nearest<br>All-Weather Road, Virginia, 1945.....                                          | 110  |
| 19            | Percent Farm Dwellings Without Telephones, Virginia, 1945.....                                                                                | 111  |
| 20            | Percent Farm Dwellings Without Automobiles, Virginia, 1945.....                                                                               | 112  |
| 21            | General Hospital Service Areas Showing Distribution of<br>Physicians, 1947.....                                                               | 118  |
| 22            | General Hospital Regions Showing Location of Existing General<br>and Allied Special Hospitals.....                                            | 132  |
| 23            | General Hospital Regions Including Service Areas, Norfolk<br>Region.....                                                                      | 140  |
| 24            | General Hospital Regions Including Service Areas, Richmond<br>Region.....                                                                     | 147  |
| 25            | General Hospital Regions Including Service Areas, Northern<br>Virginia Region.....                                                            | 151  |
| 26            | General Hospital Regions Including Service Areas, Charlottesville<br>Region.....                                                              | 158  |
| 27            | General Hospital Regions Including Service Areas, Danville<br>Region.....                                                                     | 161  |
| 28            | General Hospital Regions Including Service Areas, Roanoke<br>Region.....                                                                      | 174  |
| 29            | Marketing Map of Virginia.....                                                                                                                | 199  |

## LIST OF MAPS—Continued

| MAP<br>NUMBER | TITLE                                                                                                                         | PAGE |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|------|
| 30            | Hospital Service Areas as reported on Schedules of Information.....                                                           | 200  |
| 31            | General Hospital Service Areas.....                                                                                           | 201  |
| 32            | General Hospital Regions.....                                                                                                 | 222  |
| 33            | Deaths from Tuberculosis by Counties in 1943 and Areas that<br>could now Receive Full Sanatorium Service for White Race.....  | 223  |
| 34            | Deaths from Tuberculosis by Counties in 1943 and Areas that<br>could now Receive Full Sanatorium Service for Colored Race.... | 228  |
| 35            | Existing and Proposed Public Health Centers.....                                                                              | 232  |



## Introduction

In 1946 the 79th Congress of the United States enacted 'Public Law No. 725, entitled "The Hospital Survey and Construction Act." The purpose of this law was to encourage and assist the several States in making inventories of their existing hospitals, in surveying the need for the construction of hospitals, and in developing construction programs designed to furnish adequate hospital, clinical and similar services to all of the people. This act may be summarized very briefly as follows:

The Act authorized the appropriation of \$3,000,000 in order to assist the States to survey their needs for hospitals and related facilities and to develop programs for the construction of additional facilities. In order to qualify for a Federal grant for such survey and planning purposes, it is necessary that a State designate a single State agency to carry out the survey and planning functions.

The Act further authorizes the appropriation of \$75,000,000 for each of the five fiscal years beginning July 1, 1946, in order to assist the States in the construction of public and nonprofit hospitals, health centers, and other related facilities. In order to obtain such funds it is necessary that a State designate a single agency to administer or supervise the administration of the construction program.

In order for Virginia to participate in the Federal aid provided by Public Law No. 725, two things are necessary: (1) There must be established a State agency to carry out the survey and planning phase of the program; (2) There must be enacted proper legislation for setting up an agency to formulate and carry out actual construction of hospital facilities.

To meet the first requirement noted in the preceding paragraph, the Virginia General Assembly in January, 1947, enacted legislation entitled "The State Hospital Survey and Construction Act" authorizing the State Department of Health through the creation of a bureau of Hospital Survey and Construction, in part, to:

(1) Make an inventory of existing hospitals, survey the need for the construction of hospitals, and develop a program of hospital construction.

(2) Develop and administer a State plan for the construction of public and other nonprofit hospitals.

The Act further authorized the employment of a full time director to administer the program under the supervision and direction of the State Health Commissioner.

Dr. L. J. Roper, State Health Commissioner, anticipating the passage of this legislation, appointed A. G. Howell as Director of the Survey. Preliminary work was started on December 1, 1946 and the organization of the survey staff was completed early in January.

Soon thereafter there was created by appointment of Governor William Munford Tuck the State Advisory Hospital Council. This Council, charged with the responsibility of advising and consulting with the State Health Commissioner in the preparation of the State

plan, consists of twenty members, with the Commissioner acting as Chairman. The membership of the Council is composed of representatives of nongovernmental organizations, consumers of hospital services, and of State agencies "concerned with the operation, construction, or utilization of hospitals." The members of the Council are listed at the beginning of this report.

Schedules developed by the Commission on Hospital Care were used to take an inventory of existing facilities. In order to acquaint hospital administrators and key personnel with the purposes of the program and with these extensive schedules, four regional meetings were held. At these meetings the questionnaires were distributed and explained and the importance of filling in the questionnaire accurately and completely was impressed upon those present.

Of the 115 hospitals participating in the study only a small number found that the requested information was readily available. Therefore, much tribute is due the hospitals for the expense and time involved in making their part of this report possible.

During the initial stages of the survey each of the hospitals was visited by members of the survey staff. A majority of the institutions were visited the second time and in a few instances a third and fourth visit was requested. In each instance, with the cooperation of the hospital official, an inspection of the institution was made and a report filed with the survey office.

W. W. Lowrance, Superintendent of the Toumey Hospital, Sumter, South Carolina, formerly associated with the North Carolina Medical Care Commission, was retained to advise the staff on survey procedures. The Director made several trips to Chicago for consultation with officials of the Commission on Hospital Care.

While the inventory of the existing hospitals was being performed by the Field Representatives, research was being done at the Survey office and in Blacksburg at the Agricultural Experiment Station of V. P. I. Through the cooperation of the Director of the Experiment Station, Dr. W. E. Garnett accepted the responsibility of making a study of the social, economic, geographic and health factors of the people of Virginia as they relate to the need for hospital service. Dr. Garnett was assisted in this study by Miss Maxine Beeston.

Changing conditions as well as federal law will make the revision of this report necessary from time to time. However, it is hoped that the recommendations contained herein are adequate to meet the minimum medical and hospital needs of the people of our Commonwealth.

In addition to those already mentioned, the preparation of this report would not have been possible without the cooperation of the American Hospital Association, American College of Surgeons, American Medical Association, Virginia Hospital Association, Medical Society of Virginia, Graduate Nurses Association of Virginia, District No. 2, U.S.P.H.S., and others too numerous to record but to whom the appreciation of the survey staff has been expressed.

## **Chapter One**

### **THE PEOPLE OF VIRGINIA - SOCIAL, ECONOMIC, GEOGRAPHIC AND HEALTH FACTORS RELATED TO HOSPITAL SERVICE**





## **THE PEOPLE OF VIRGINIA - SOCIAL, ECONOMIC, GEOGRAPHIC AND HEALTH FACTORS RELATED TO HOSPITAL SERVICE**

In planning for adequate hospital service, it is necessary to have a knowledge of the population to be served and conditions governing the demand for and use of hospital facilities. Hospital needs are influenced by many social, economic, geographic and health factors. The most important of these, in their relation to hospital planning in Virginia, are discussed on the following pages.

### **POPULATION**

The total number of persons to be served and their distribution, age, race and sex are important factors in determining the number of hospital beds needed. Other factors, such as population trends, migration in or out of the area, and fertility rates give an indication of the hospital needs of the future.

#### **Number of People:**

Virginia had a small but steady increase in population from 1900-1940. (Table 1.) During this period the percentage of increase each decade was between 10 and 12 per cent, with the exception of the period 1920-30, when the population increase was only 4.9 per cent. This was probably due to heavy migration out of the state during a period of wide-spread industrial expansion in other areas of the country. The increase in Virginia's population during the last three decades has been in the white population. (Table 2 and Chart 2.) The number of non-whites in Virginia decreased 4.2 per cent between 1920 and 1940.

Virginia's slow rate of growth, which was greatest during the early colonial years, reflects her position as one of the oldest of the states. Offsetting a large natural increase has been migration out of the state into areas of better economic opportunity. During the war the rate of growth was greatly accelerated, due to the expansion of war industries and the civilian growth concomitant to military establishments.

#### **Where People Live:**

Virginia is still primarily a rural state, although there has been a steady trend toward urbanization, (Table I and Chart I), which was accelerated by the war. (Table 3 and Chart 3.) In 1940, approximately two-thirds of the population was classified as rural. (Table 1.) The rural farm population, however, is decreasing. The national trend toward suburban living is reflected among the white group in Virginia by an increase in the number of rural non-farm population. The non-white group shows a decrease in rural areas and a steady increase in urban areas.

### **Density of Population:**

Large areas with small population densities can support only small hospitals. Sparsely settled areas are usually those which offer little in the way of economic opportunity, and tend to attract a marginal population with small incomes and low educational standards. These factors influence demand for hospital service as well as ability to pay for it.

Virginia, as a whole, has an average of 67.1 persons per square mile, with variations in counties ranging from 2,377 in Arlington to 11.2 in Craig. (Table 4 and Map 1.) In 1940, counties showing low density of population (under 20 persons per square mile) were Bath, Bland, Craig, Highland and New Kent. The first four of these counties are located in mountainous areas, largely unsuited for farming and partly consisting of nationally owned forests and parks. New Kent is situated in the old Tidewater section, formerly the location of many large plantations, and now an area of depleted land, unfavorable to profitable farming. Immediately west of Richmond is another sparsely settled area, where the fertility of the land has been exhausted by long-continued growth of tobacco. It is interesting to note that in the eastern part of the state, areas of low population density, such as Middle Virginia and Eastern Southside Virginia, have a high proportion of non-whites in the population. Consequently, the problem of having relatively few persons within these areas to support institutions is complicated by racial stratification, which often necessitates duplicate facilities. The areas of greatest density of population (over 100 persons per square mile) were Arlington, Henrico, Roanoke, Elizabeth City, Warwick and Wise counties, for the most part urban areas. The prevalence of relatively high densities of population, the high birth rate, and the absence of any considerable migration in these counties is the result of industrial activities which require many workers.

Shifts in population during the war years were toward urban centers. Rural areas show a corresponding decrease in population. (Table 3 and Chart 3.)

### **Composition of Population - Race, Age and Sex:**

In areas where substantial racial minorities exist, the question of hospital service is complicated by traditional attitudes, and by the low incomes and level of education which often characterize minority groups and which influence demand for hospital service.

In 1940, 24.7 per cent, or approximately one-fourth of the population of the state, was non-white. (Table 4.) Of the entire non-white population, 36.5 per cent live in urban areas while 39.5 per cent live on rural farms and 24.0 per cent in rural non-farm areas. (Computed from Table 2.) The estimated population figures for 1945 show that the non-white population has decreased slightly in the period 1940-45, from 24.7 per cent to 24.2 per cent. (Table 5.) The



non-white population is concentrated in the southeastern and south central sections of the state. (Map 2.) There are few non-whites in counties west of the Blue Ridge. The percentage of non-whites in the population by counties ranges from a low of 1.1 per cent in Scott county to a high of 77.8 per cent in Charles City. (Table 5.)

Both the age and sex distribution of the population are related to disease and to hospital needs. The trend toward a higher percentage of old persons in the population is significant, as many of the diseases of old age are of a chronic nature and require long period of hospitalization. The need for hospital facilities is relatively low for younger groups and increases with age.

The sex distribution is of significance because of the particular need for hospital service by women of child-bearing age and because of the greater use of hospital facilities by women in all age groups.

Virginia follows the national trend toward a higher percentage of old people in the population, though the state, along with the southeast as a whole, still has a predominantly young population. The percentage of persons under 15 years of age changed from 38.3 in 1900 to 28.6 in 1940, while the percentage 45-64 years of age increased from 12.8 in 1900 to 16.8 in 1940. (Table 6.) White and non-white follow the same trend, although there are more young persons in the non-white group. (Chart 4, Figures 1 and 2.)

Rural areas have more young people than urban areas, 32.2 per cent of the population as compared with 22.0 per cent. Rural areas also have slightly more persons over 65 years, 5.9 compared with the urban percentage of 5.6. (Table 7.) The highest proportion of young persons (under 15) are found in the extreme western area of the state and in the south central area. (Map 3.) Correspondingly, these same areas have fewer persons over 65 years than the eastern and northern parts of the state. (Map 4.)

The ratio of men to women in the population is almost equal and closely parallels the national ratio. The population of the United States in 1940 was 50.2 per cent male and 49.8 per cent female, and in Virginia, 50.4 per cent male and 49.6 per cent female.<sup>1</sup> A comparison of sex ratios in the age group 15-44 indicates that there is no city or county in the state with a disproportionate ratio of females to males, although the percentage of females tends to be somewhat higher in urban areas. (Table 7.)

### Recent and Prospective Population Changes:

Dr. Lorin Thompson, Director of the Bureau of Population and Economic Research, University of Virginia, points out the following factors influencing recent and prospective population changes in Virginia.<sup>2</sup> The war brought a large net inward migration, accelerated urban growth, a rapid decline in rural farm population, and a rise in the birth rate. The estimated population of the state in 1945 was

2,810,278 with 2,131,046 white and 679,232 non-white. (Table 5.) Assuming no net migration to or from Virginia, the prospect for the future is continued urbanization with a decline in both white and colored farm population in 1950. Dr. Thompson anticipates a population in the neighborhood of 3,100,000 in 1950, with approximately 45 per cent of the population located in urban centers. This population figure will represent an increase of 422,000 over the 1940 census figure, or a gain of 15.8 per cent for the decade.

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<sup>1</sup> Population Census, Second Series, 1940, U. S. Summary, Table 4, Page 13 and Population Census, Second Series, 1940, Virginia, Table 4, Page 10.

<sup>2</sup> Thompson, Lorain A., University of Virginia News Letter, Vol. XXIII, No. 13, April 1, 1947, "Recent and Prospective Population Changes in Virginia."

CHART. I  
POPULATION OF VIRGINIA BY RESIDENCE, 1900 - 1940

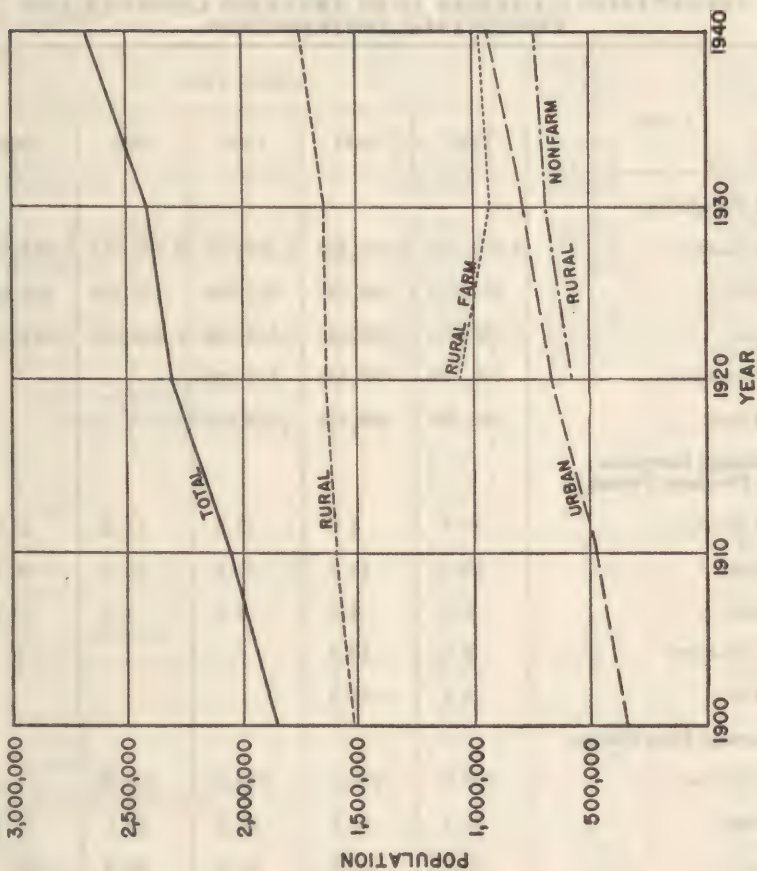


Chart 1 - The total population of Virginia rose from 1,854,184 in 1900 to 2,677,773 in 1940. The greatest proportionate increase has been in urban areas. The rural-farm population decreased from 1920 to 1940 and the rural non-farm population increased.



TABLE I

POPULATION, URBAN AND RURAL, VIRGINIA, 1900-1940, SHOWING  
PERCENTAGE INCREASES OVER PREVIOUS CENSUSES AND  
PERCENTAGE DISTRIBUTION

| Class                                                  | Census Year |           |           |           |           |
|--------------------------------------------------------|-------------|-----------|-----------|-----------|-----------|
|                                                        | 1940        | 1930      | 1920      | 1910      | 1900      |
| <b>Total Population</b>                                |             |           |           |           |           |
| All places.....                                        | 2,677,773   | 2,421,851 | 2,309,187 | 2,061,612 | 1,854,184 |
| Urban.....                                             | 944,675     | 785,537   | 673,984   | 476,529   | 340,067   |
| Rural.....                                             | 1,733,098   | 1,636,314 | 1,635,203 | 1,585,083 | 1,514,117 |
| Non-farm.....                                          | 749,739     | 687,568   | 575,290   |           |           |
| Farm.....                                              | 983,359     | 948,746   | 1,059,913 |           |           |
| <b>Percentage Increases<br/>Over Previous Censuses</b> |             |           |           |           |           |
| All places.....                                        | 10.6        | 4.9       | 12.0      | 11.2      | 12.0      |
| Urban.....                                             | 20.3        | 16.6      | 41.4      | 40.1      | 20.3      |
| Rural.....                                             | 5.9         | 0.1       | 3.2       | 4.7       | 10.3      |
| Non-farm.....                                          | 9.0         | 19.5      |           |           |           |
| Farm.....                                              | 3.6         | -10.5     |           |           |           |
| <b>Percentage Distribution</b>                         |             |           |           |           |           |
| All places.....                                        | 100.0       | 100.0     | 100.00    | 100.00    | 100.00    |
| Urban.....                                             | 35.3        | 32.4      | 29.2      | 23.1      | 18.3      |
| Rural.....                                             | 64.7        | 67.6      | 70.8      | 76.9      | 81.7      |
| Non-farm.....                                          | 28.0        | 28.4      | 24.9      |           |           |
| Farm.....                                              | 36.7        | 39.2      | 45.9      |           |           |

SOURCE: Population Census, 1940, Virginia, Second Series, Tables 1 and 3, Page 9.

**TABLE II**  
**POPULATION BY COLOR, URBAN AND RURAL, VIRGINIA, 1920-1940**  
**SHOWING PERCENTAGE INCREASES OVER PREVIOUS CENSUSES**  
**AND PERCENTAGE DISTRIBUTION**

| Residence and Color                                | 1940      | 1930      | 1920      |
|----------------------------------------------------|-----------|-----------|-----------|
| <b>Total Population</b>                            |           |           |           |
| State.....                                         | 2,677,773 | 2,421,851 | 2,309,187 |
| White.....                                         | 2,015,583 | 1,770,441 | 1,617,909 |
| Non-white.....                                     | 662,190   | 651,410   | 691,278   |
| Urban.....                                         | 944,675   | 785,537   | 673,984   |
| White.....                                         | 703,295   | 571,679   | 464,473   |
| Non-white.....                                     | 241,380   | 213,858   | 209,511   |
| Rural—Non-farm.....                                | 749,739   | 687,568   | 575,290   |
| White.....                                         | 590,548   | 509,620   | 402,172   |
| Non-white.....                                     | 159,191   | 177,948   | 173,118   |
| Rural—Farm.....                                    | 983,359   | 948,746   | 1,059,913 |
| White.....                                         | 721,740   | 689,142   | 751,264   |
| Non-white.....                                     | 261,619   | 259,604   | 308,649   |
| <b>Percentage Increases Over Previous Censuses</b> |           |           |           |
| State.....                                         | 10.6      | 4.9       | 12.0      |
| White.....                                         | 13.8      | 9.4       |           |
| Non-white.....                                     | 1.7       | -5.8      |           |
| Urban.....                                         | 20.3      | 16.6      | 41.4      |
| White.....                                         | 23.0      | 23.1      |           |
| Non-white.....                                     | 12.9      | 2.1       |           |
| Rural—Non-farm.....                                | 9.1       | 19.5      |           |
| White.....                                         | 15.9      | 26.7      |           |
| Non-white.....                                     | -10.5     | 2.8       |           |
| Rural—Farm.....                                    | 3.6       | -10.5     |           |
| White.....                                         | 4.7       | -8.3      |           |
| Non-white.....                                     | .8        | -15.9     |           |
| <b>Percentage Distribution</b>                     |           |           |           |
| State.....                                         | 100.0     | 100.0     | 100.0     |
| White.....                                         | 75.3      | 73.1      | 70.1      |
| Non-white.....                                     | 24.7      | 26.9      | 29.9      |
| Urban.....                                         | 100.0     | 100.0     | 100.0     |
| White.....                                         | 74.4      | 72.8      | 68.9      |
| Non-white.....                                     | 25.6      | 27.2      | 31.1      |
| Rural—Non-farm.....                                | 100.0     | 100.0     | 100.0     |
| White.....                                         | 78.8      | 74.1      | 69.9      |
| Non-white.....                                     | 21.2      | 25.9      | 30.1      |
| Rural—Farm.....                                    | 100.0     | 100.0     | 100.0     |
| White.....                                         | 73.4      | 72.6      | 70.9      |
| Non-white.....                                     | 26.6      | 27.4      | 29.1      |

SOURCE: Population Census, 1940, Virginia, Second Series, Table 5, p. 11.

CHART 2

## POPULATION BY COLOR, VIRGINIA, 1920 - 1940

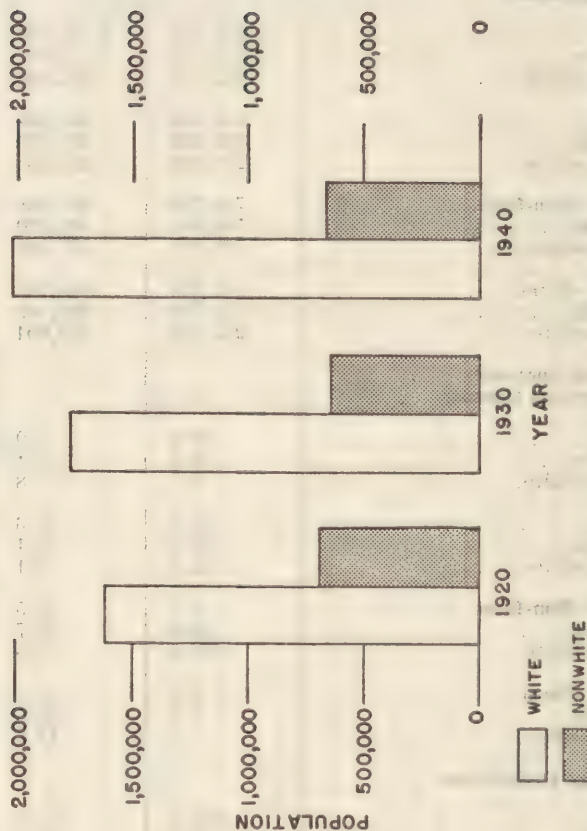


Chart 2 - The white population in Virginia increased from 2,309,187 in 1920 to 2,677,773 in 1940. During the same period, the non-white population decreased from 691,278 to 662,190. The slight increase in non-white population from 1930 to 1940 is explained by the depression, which forced many Negro workers to return to Virginia from other states, where they had found employment during the period of industrial expansion in the 1920's.



TABLE III

POPULATION OF VIRGINIA COUNTIES, INCLUDING INDEPENDENT  
CITIES, 1930, 1940, AND 1943, AND PERCENTAGE CHANGES  
1930-1940 AND 1940-43

| County              | Total Population |           |           | Percentage Change |         |
|---------------------|------------------|-----------|-----------|-------------------|---------|
|                     | Nov. 1,<br>1943  | 1940      | 1930      | 1930-40           | 1940-43 |
| STATE.....          | 2,769,828        | 2,677,773 | 2,421,851 | 10.6              | 4.8     |
| Accomac.....        | 28,253           | 33,030    | 35,854    | - 7.9             | -14.3   |
| Albemarle.....      | 40,155           | 44,052    | 42,226    | 4.3               | - 8.8   |
| Alleghany.....      | 25,550           | 29,149    | 27,027    | 7.9               | -12.3   |
| Amelia.....         | 7,689            | 8,495     | 8,979     | - 5.4             | - 9.5   |
| Amherst.....        | 17,663           | 20,273    | 19,020    | 6.6               | -12.9   |
| Appomattox.....     | 8,059            | 9,020     | 8,402     | 7.4               | -10.7   |
| Arlington.....      | 136,622          | 90,563    | 50,764    | 114.3             | 54.6    |
| Augusta.....        | 55,342           | 56,109    | 50,153    | 11.9              | - 1.4   |
| Bath.....           | 5,647            | 7,191     | 8,137     | -11.6             | -21.5   |
| Bedford.....        | 25,374           | 29,687    | 29,091    | 2.0               | -14.5   |
| Bland.....          | 6,047            | 6,731     | 6,031     | 11.6              | -10.2   |
| Botetourt.....      | 13,245           | 16,447    | 15,457    | 6.4               | -19.5   |
| Brunswick.....      | 18,478           | 19,575    | 20,486    | - 4.4             | - 5.6   |
| Buchanan.....       | 26,203           | 31,477    | 16,740    | 88.0              | -16.8   |
| Buckingham.....     | 11,106           | 13,398    | 13,315    | 0.6               | -17.1   |
| Campbell.....       | 64,350           | 70,589    | 63,546    | 11.1              | - 8.8   |
| Caroline.....       | 11,432           | 13,945    | 15,263    | - 8.6             | -18.0   |
| Carroll.....        | 21,522           | 25,904    | 22,141    | 17.0              | -16.9   |
| Charles City.....   | 4,300            | 4,275     | 4,881     | -12.4             | 0.6     |
| Charlotte.....      | 13,151           | 15,861    | 16,061    | - 1.2             | -17.1   |
| Chesterfield.....   | 29,312           | 31,183    | 26,049    | 19.7              | - 6.0   |
| Clarke.....         | 6,477            | 7,159     | 7,167     | - 0.1             | - 9.5   |
| Craig.....          | 3,141            | 3,769     | 3,562     | 5.8               | -16.7   |
| Culpeper.....       | 11,997           | 13,365    | 13,306    | 0.4               | -10.2   |
| Cumberland.....     | 6,339            | 7,505     | 7,535     | - 0.4             | -15.5   |
| Dickenson.....      | 19,558           | 21,266    | 16,163    | 31.6              | - 8.0   |
| Dinwiddie.....      | 49,055           | 48,797    | 47,056    | 3.7               | - 0.5   |
| Elizabeth City..... | 55,281           | 27,648    | 26,217    | 5.5               | 9.9     |
| Essex.....          | 6,421            | 7,006     | 6,976     | 0.4               | - 8.3   |
| Fairfax.....        | 53,072           | 40,929    | 25,264    | 62.0              | 39.2    |
| Fauquier.....       | 18,970           | 21,039    | 21,071    | - 0.2             | - 9.8   |
| Floyd.....          | 10,626           | 11,967    | 11,698    | 2.3               | -11.2   |
| Fluvanna.....       | 6,432            | 7,088     | 7,466     | - 5.1             | - 9.3   |
| Franklin.....       | 21,624           | 25,864    | 24,337    | 6.3               | -16.4   |
| Frederick.....      | 25,413           | 26,103    | 24,022    | 8.7               | - 2.6   |
| Giles.....          | 14,817           | 14,635    | 12,804    | 14.3              | 1.2     |
| Gloucester.....     | 9,426            | 9,548     | 11,019    | -13.3             | - 1.3   |
| Goochland.....      | 7,416            | 8,454     | 7,953     | 6.3               | -12.3   |
| Grayson.....        | 17,273           | 21,916    | 20,017    | 9.5               | -21.2   |
| Greene.....         | 4,589            | 5,218     | 5,980     | -12.7             | -12.1   |

TABLE III—Continued

| County              | Total Population |         |         | Percentage Change |         |
|---------------------|------------------|---------|---------|-------------------|---------|
|                     | Nov. 1,<br>1943  | 1940    | 1930    | 1930-40           | 1940-43 |
| Greenville.....     | 13,809           | 14,866  | 13,388  | 11.0              | - 7.1   |
| Halifax.....        | 36,447           | 41,271  | 41,283  | .....             | -11.7   |
| Hanover.....        | 17,478           | 18,500  | 17,009  | 8.8               | - 5.5   |
| Henrico.....        | 252,777          | 235,002 | 213,239 | 38.4              | -30.7   |
| Henry.....          | 37,760           | 36,561  | 27,793  | 31.5              | 3.3     |
| Highland.....       | 4,136            | 4,875   | 4,525   | 7.7               | -15.2   |
| Isle of Wight.....  | 13,118           | 13,381  | 13,409  | - 0.2             | - 2.0   |
| James City.....     | 13,567           | 8,849   | 7,657   | 15.5              | 53.3    |
| King & Queen.....   | 5,939            | 6,954   | 7,618   | - 8.7             | -14.6   |
| King George.....    | 5,749            | 5,431   | 5,297   | 2.5               | 5.9     |
| King William.....   | 7,940            | 7,855   | 7,929   | - 0.9             | 1.1     |
| Lancaster.....      | 7,098            | 8,786   | 8,896   | - 1.2             | -19.2   |
| Lee.....            | 32,325           | 39,296  | 30,419  | 29.2              | -17.7   |
| Loudoun.....        | 18,486           | 20,291  | 19,852  | 2.2               | - 8.9   |
| Louisa.....         | 11,006           | 13,665  | 14,309  | - 4.5             | -19.5   |
| Lunenburg.....      | 13,226           | 13,844  | 14,058  | - 1.5             | - 4.5   |
| Madison.....        | 7,798            | 8,465   | 8,952   | - 5.4             | - 7.9   |
| Mathews.....        | 6,481            | 7,149   | 7,884   | - 9.3             | - 9.3   |
| Mecklenburg.....    | 28,678           | 31,933  | 32,622  | - 2.1             | -10.2   |
| Middlesex.....      | 6,026            | 6,673   | 7,273   | - 8.2             | - 9.7   |
| Montgomery.....     | 33,017           | 28,196  | 25,832  | 9.2               | 17.1    |
| Nansemond.....      | 33,704           | 34,114  | 32,801  | 4.0               | - 1.2   |
| Nelson.....         | 13,797           | 16,241  | 16,345  | - 0.6             | -15.0   |
| New Kent.....       | 3,576            | 4,092   | 4,300   | - 4.8             | -12.6   |
| Norfolk.....        | 343,849          | 227,949 | 213,353 | 6.8               | 50.8    |
| Northampton.....    | 16,202           | 17,597  | 18,565  | - 5.2             | - 7.7   |
| Northumberland..... | 8,572            | 10,463  | 11,081  | - 5.6             | -18.1   |
| Nottoway.....       | 16,834           | 15,556  | 14,866  | 4.6               | 8.2     |
| Orange.....         | 11,627           | 12,649  | 12,070  | 4.8               | - 8.1   |
| Page.....           | 13,411           | 14,863  | 14,852  | 0.1               | - 9.8   |
| Patrick.....        | 12,804           | 16,613  | 15,787  | 5.2               | -22.9   |
| Pittsylvania.....   | 88,467           | 94,446  | 83,671  | 12.9              | - 6.3   |
| Powhatan.....       | 5,465            | 5,671   | 6,143   | - 7.7             | - 3.6   |
| Prince Edward.....  | 12,935           | 14,922  | 14,520  | 2.8               | -13.3   |
| Prince George.....  | 20,599           | 20,905  | 21,638  | 3.4               | - 1.5   |
| Prince William..... | 15,032           | 17,738  | 13,951  | 27.1              | 15.3    |
| Princess Anne.....  | 25,891           | 19,984  | 15,282  | 22.7              | 29.6    |
| Pulaski.....        | 23,695           | 22,767  | 20,566  | 10.7              | 4.1     |
| Rappahannock.....   | 6,102            | 7,208   | 7,717   | - 6.6             | -15.3   |
| Richmond.....       | 5,781            | 6,634   | 6,878   | - 3.5             | -12.9   |
| Roanoke.....        | 104,808          | 112,181 | 104,495 | 7.4               | - 6.6   |
| Rockbridge.....     | 23,669           | 26,719  | 24,904  | 7.1               | -20.5   |
| Rockingham.....     | 38,057           | 40,057  | 36,941  | 8.4               | - 5.0   |
| Russell.....        | 23,400           | 26,627  | 25,957  | 2.6               | -12.1   |
| Scott.....          | 25,250           | 26,989  | 24,181  | 11.6              | - 6.4   |

TABLE III—Continued

| County             | Total Population |        |        | Percentage Change |         |
|--------------------|------------------|--------|--------|-------------------|---------|
|                    | Nov. 1,<br>1943  | 1940   | 1930   | 1930-40           | 1940-43 |
| Shenandoah.....    | 19,339           | 20,898 | 20,655 | 1.2               | — 7.5   |
| Smyth.....         | 27,084           | 28,861 | 25,125 | 14.9              | — 6.2   |
| Southampton.....   | 24,655           | 26,442 | 26,870 | — 1.6             | — 6.8   |
| Spottsylvania..... | 21,298           | 19,971 | 16,875 | 6.6               | —18.3   |
| Stafford.....      | 8,739            | 9,548  | 8,050  | 18.6              | — 0.8   |
| Surry.....         | 5,248            | 6,193  | 7,096  | 12.7              | —15.3   |
| Sussex.....        | 11,670           | 12,485 | 12,100 | 3.2               | — 6.5   |
| Tazewell.....      | 41,781           | 41,607 | 32,477 | 28.1              | 0.4     |
| Warren.....        | 11,386           | 11,352 | 8,340  | 36.1              | 3.0     |
| Warwick.....       | 80,098           | 46,315 | 43,246 | 7.1               | 72.9    |
| Washington.....    | 46,349           | 47,965 | 42,690 | — 3.4             | 12.4    |
| Westmoreland.....  | 8,750            | 9,512  | 8,497  | 11.9              | — 8.0   |
| Wise.....          | 48,112           | 52,458 | 51,167 | 2.5               | — 8.3   |
| Wythe.....         | 20,937           | 22,721 | 20,704 | 9.7               | — 7.9   |
| York.....          | 10,567           | 8,857  | 7,615  | 16.3              | 23.3    |

**SOURCES:** Bureau of the Census, Population—Special Reports, Series P-44, No. 3, Table 3, Page 25-26.  
 16th Census of the U. S., 1940, Population—Virginia, First Series, Table 3, Page 3-4



# POPULATION CHANGES IN VIRGINIA

1930 - 1943

INCREASE 1930 - 1940

1 DOT = 200 PEOPLE

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



CHART 3  
FIGURE 2

DECREASE 1930 - 1940

1 DOT = 200 PEOPLE

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947







CHART 3  
FIGURE 4  
POPULATION CHANGES IN VIRGINIA  
1930 - 1943

DECREASE 1940 - 1943

1 DOT = 200 PEOPLE

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



Chart 3 - Population increases in the period 1930-40 were in urban areas and in the coal-mining section of Southwest Virginia. The Tidewater Section and Eastern Shore showed some decrease. In 1940-43 there was a large increase in population around industrial centers, particularly Norfolk. A powder plant located in Radford explains the increased population in Montgomery county.

TABLE IV

**TOTAL POPULATION, PER CENT NON-WHITE, AND POPULATION  
PER SQUARE MILE, VIRGINIA COUNTIES, 1940  
TABULATION SHEET VIRGINIA COUNTIES**

| County              | Total<br>Population | Percent<br>Non-White | Population<br>Per Square |
|---------------------|---------------------|----------------------|--------------------------|
| <b>STATE</b> .....  | <b>2,677,773</b>    | <b>24.7</b>          | <b>67.1</b>              |
| Accomac.....        | 33,030              | 41.5                 | 70.3                     |
| Albemarle.....      | 24,652              | 23.0                 | 33.4                     |
| Alleghany.....      | 22,688              | 9.2                  | 50.3                     |
| Amelia.....         | 8,495               | 50.9                 | 23.2                     |
| Amherst.....        | 20,273              | 30.5                 | 43.4                     |
| Appomattox.....     | 9,020               | 27.0                 | 26.3                     |
| Arlington.....      | 57,040              | 8.8                  | 2,376.7                  |
| Augusta.....        | 42,772              | 7.6                  | 42.8                     |
| Bath.....           | 7,191               | 11.1                 | 13.3                     |
| Bedford.....        | 29,687              | 21.4                 | 38.4                     |
| Bland.....          | 6,731               | 1.7                  | 18.2                     |
| Botetourt.....      | 16,447              | 11.7                 | 30.0                     |
| Brunswick.....      | 19,575              | 55.6                 | 33.8                     |
| Buchanan.....       | 31,477              | .....                | 62.0                     |
| Buckingham.....     | 13,398              | 42.3                 | 23.3                     |
| Campbell.....       | 26,048              | 25.8                 | 49.1                     |
| Caroline.....       | 13,945              | 50.2                 | 25.6                     |
| Carroll.....        | 25,904              | 1.3                  | 52.2                     |
| Charles City.....   | 4,275               | 77.8                 | 23.2                     |
| Charlotte.....      | 15,861              | 42.9                 | 33.9                     |
| Chesterfield.....   | 31,183              | 20.0                 | 65.6                     |
| Clarke.....         | 7,159               | 18.2                 | 41.1                     |
| Craig.....          | 3,769               | 1.3                  | 11.2                     |
| Culpeper.....       | 13,865              | 31.5                 | 34.4                     |
| Cumberland.....     | 7,505               | 58.4                 | 26.1                     |
| Dickenson.....      | 21,266              | 2.2                  | 63.5                     |
| Dinwiddie.....      | 18,166              | 64.5                 | 35.8                     |
| Elizabeth City..... | 32,283              | 21.7                 | 576.5                    |
| Essex.....          | 7,006               | 51.2                 | 28.0                     |
| Fairfax.....        | 40,929              | 15.9                 | 98.2                     |
| Fauquier.....       | 21,039              | 29.1                 | 31.9                     |
| Floyd.....          | 11,967              | 4.2                  | 31.2                     |
| Fluvanna.....       | 7,088               | 39.2                 | 25.1                     |
| Franklin.....       | 25,864              | 14.4                 | 36.0                     |
| Frederick.....      | 14,008              | 3.0                  | 32.4                     |
| Giles.....          | 14,635              | 3.6                  | 41.1                     |
| Gloucester.....     | 9,548               | 33.3                 | 42.4                     |
| Goochland.....      | 8,454               | 52.0                 | 29.3                     |
| Grayson.....        | 21,916              | 3.8                  | 48.6                     |
| Greene.....         | 5,218               | 15.0                 | 34.1                     |

TABLE IV—Continued

| County              | Total<br>Population | Percent<br>Non-White | Population<br>Per Square |
|---------------------|---------------------|----------------------|--------------------------|
| Greensville.....    | 14,866              | 60.0                 | 49.4                     |
| Halifax.....        | 41,271              | 44.7                 | 51.1                     |
| Hanover.....        | 18,500              | 35.5                 | 39.7                     |
| Henrico.....        | 41,960              | 16.6                 | 174.1                    |
| Henry.....          | 26,481              | 27.1                 | 67.6                     |
| Highland.....       | 4,875               | 1.8                  | 11.7                     |
| Isle of Wight.....  | 13,381              | 51.5                 | 41.7                     |
| James City.....     | 4,907               | 44.2                 | 32.7                     |
| King and Queen..... | 6,954               | 52.8                 | 21.9                     |
| King George.....    | 5,431               | 33.5                 | 30.5                     |
| King William.....   | 7,855               | 48.3                 | 28.3                     |
| Lancaster.....      | 8,786               | 43.2                 | 61.9                     |
| Lee.....            | 39,296              | 1.6                  | 90.5                     |
| Loudoun.....        | 20,291              | 20.2                 | 39.2                     |
| Louisa.....         | 13,665              | 40.6                 | 26.6                     |
| Lunenburg.....      | 13,844              | 44.3                 | 31.3                     |
| Madison.....        | 8,465               | 25.5                 | 25.9                     |
| Mathews.....        | 7,149               | 24.8                 | 82.2                     |
| Mecklenburg.....    | 31,933              | 51.1                 | 48.0                     |
| Middlesex.....      | 6,673               | 43.3                 | 50.6                     |
| Montgomery.....     | 21,206              | 7.4                  | 53.7                     |
| Nansemond.....      | 22,771              | 67.1                 | 56.6                     |
| Nelson.....         | 16,241              | 26.5                 | 34.7                     |
| New Kent.....       | 4,092               | 58.0                 | 19.3                     |
| Norfolk.....        | 35,828              | 34.7                 | 98.4                     |
| Northampton.....    | 17,597              | 53.9                 | 77.9                     |
| Northumberland..... | 10,463              | 41.3                 | 52.3                     |
| Nottoway.....       | 15,556              | 46.0                 | 50.5                     |
| Orange.....         | 12,649              | 28.7                 | 35.7                     |
| Page.....           | 14,863              | 4.5                  | 47.0                     |
| Patrick.....        | 16,613              | 8.3                  | 35.4                     |
| Pittsylvania.....   | 61,697              | 30.8                 | 60.4                     |
| Powhatan.....       | 5,671               | 44.2                 | 21.2                     |
| Prince Edward.....  | 14,922              | 48.2                 | 41.8                     |
| Prince George.....  | 12,226              | 40.2                 | 42.7                     |
| Prince William..... | 17,738              | 14.4                 | 51.1                     |
| Princess Anne.....  | 19,984              | 38.8                 | 74.8                     |
| Pulaski.....        | 22,767              | 9.1                  | 68.4                     |
| Rappahannock.....   | 7,208               | 22.1                 | 27.0                     |
| Richmond.....       | 6,634               | 38.2                 | 34.6                     |
| Roanoke.....        | 42,897              | 7.8                  | 146.9                    |
| Rockbridge.....     | 22,384              | 10.2                 | 37.1                     |
| Rockingham.....     | 31,289              | 2.7                  | 36.0                     |
| Russell.....        | 26,627              | 2.7                  | 55.1                     |
| Scott.....          | 26,989              | 1.1                  | 50.1                     |



TABLE IV—Continued

| County            | Total<br>Population | Percent<br>Non-White | Population<br>Per Square |
|-------------------|---------------------|----------------------|--------------------------|
| Shenandoah.....   | 20,898              | 1.6                  | 41.2                     |
| Smyth.....        | 28,861              | 1.9                  | 66.3                     |
| Southampton.....  | 26,442              | 61.5                 | 43.6                     |
| Spotsylvania..... | 9,905               | 28.1                 | 24.0                     |
| Stafford.....     | 9,548               | 15.1                 | 35.2                     |
| Surry.....        | 6,193               | 61.4                 | 22.1                     |
| Sussex.....       | 12,485              | 67.1                 | 25.2                     |
| Tazewell.....     | 41,607              | 7.2                  | 79.7                     |
| Warren.....       | 11,352              | 9.3                  | 51.8                     |
| Warwick.....      | 9,248               | 27.5                 | 130.3                    |
| Washington.....   | 38,197              | 3.7                  | 65.7                     |
| Westmoreland..... | 9,512               | 47.3                 | 40.3                     |
| Wise.....         | 52,458              | 5.4                  | 126.7                    |
| Wythe.....        | 22,721              | 6.0                  | 49.4                     |
| York.....         | 8,857               | 36.4                 | 72.0                     |

**SOURCES:** Population Census, 1940, Virginia, Second Series, Table 28, pp 115-127.  
Population Census, 1940, Virginia, First Series, Table 3, pp 3-4.

MAP 1

# POPULATION PER SQUARE MILE

## VIRGINIA CITIES AND COUNTIES, 1940

NO. COUNTIES POP. PER SQ. MI.

STATE POP. PER SQ. MI. 67.1



70 AND UP

60 - 69

50 - 59

40 - 49

30 - 39

20 - 29

UNDER 20

5

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



|                 |         |                |         |              |         |               |         |            |         |
|-----------------|---------|----------------|---------|--------------|---------|---------------|---------|------------|---------|
| Alexandria      | 4,190.4 | Danville       | 5,458.2 | Lynchburg    | 3,426.2 | Portsmouth    | 8,457.5 | Staunton   | 6,668.5 |
| Arlington       | 4,884.0 | Fredericksburg | 5,033.0 | Martinsville | 5,040.0 | Radford       | 1,398.0 | Suffolk    | 5,671.5 |
| Buena Vista     | 1,445.0 | Hampton        | 5,898.0 | Newport News | 9,266.8 | Richmond      | 9,192.5 | Wm'sburg   | 3,942.0 |
| Charlottesville | 2,233.3 | Harrisonburg   | 4,384.0 | Norfolk      | 5,154.7 | Roanoke       | 6,238.8 | Winchester | 3,023.8 |
| Clifton Forge   | 6,461.0 | Spotswood      | 1,735.8 | Petersburg   | 5,105.2 | South Norfolk | 4,019.0 |            |         |

Map 1 - Southwest Virginia is a region of high population densities, due to industries requiring many workers, high birth rates and relatively little migration out of the area. Other areas of high population density are the Eastern Shore and counties which have large urban centers. The low population densities in middle Virginia and the old Tidewater section reflect depleted soil and few economic opportunities.

**TABLE V**  
**ESTIMATED CIVILIAN POPULATION, VIRGINIA, JULY 1, 1945.**

| Area                 | Total     | White     | Non-White | Pct.<br>Non-White |
|----------------------|-----------|-----------|-----------|-------------------|
| <b>STATE</b> .....   | 2,810,278 | 2,131,046 | 679,232   | 24.2              |
| <b>Cities]</b>       |           |           |           |                   |
| Alexandria.....      | 53,381    | 44,947    | 8,434     | 15.8              |
| Bristol.....         | 14,319    | 12,787    | 1,532     | 10.7              |
| Charlottesville..... | 20,441    | 16,067    | 4,374     | 21.4              |
| Danville.....        | 32,502    | 22,426    | 10,076    | 31.0              |
| Fredericksburg.....  | 12,682    | 10,349    | 2,333     | 18.4              |
| Lynchburg.....       | 42,711    | 32,887    | 9,824     | 23.0              |
| Martinsville.....    | 11,020    | 8,816     | 2,204     | 20.0              |
| Newport News.....    | 43,694    | 23,954    | 19,740    | 45.2              |
| Norfolk.....         | 167,944   | 115,766   | 52,178    | 31.1              |
| Petersburg.....      | 34,789    | 20,066    | 14,723    | 42.3              |
| Portsmouth.....      | 59,472    | 35,070    | 24,402    | 41.0              |
| Richmond.....        | 226,023   | 154,374   | 71,649    | 31.7              |
| Roanoke.....         | 65,821    | 53,644    | 12,177    | 18.5              |
| Staunton.....        | 15,351    | 13,463    | 1,888     | 12.3              |
| Suffolk.....         | 12,990    | 8,599     | 4,391     | 33.8              |
| Winchester.....      | 12,093    | 11,029    | 1,064     | 8.8               |
| <b>Counties</b>      |           |           |           |                   |
| Accomac.....         | 28,638    | 17,727    | 10,911    | 38.1              |
| Albemarle.....       | 21,424    | 16,496    | 4,928     | 23.0              |
| Alleghany.....       | 26,071    | 23,100    | 2,971     | 11.4              |
| Amelia.....          | 7,792     | 3,826     | 3,966     | 50.9              |
| Amherst.....         | 18,531    | 12,879    | 5,652     | 30.5              |
| Appomattox.....      | 8,279     | 6,044     | 2,235     | 27.0              |
| Arlington.....       | 90,046    | 82,122    | 7,924     | 8.8               |
| Augusta.....         | 40,921    | 37,811    | 3,110     | 7.6               |
| Bath.....            | 5,788     | 5,146     | 642       | 11.1              |
| Bedford.....         | 25,909    | 20,364    | 5,545     | 21.4              |
| Bland.....           | 6,163     | 6,058     | 105       | 1.7               |
| Botetourt.....       | 13,551    | 11,966    | 1,585     | 11.7              |
| Brunswick.....       | 18,832    | 8,361     | 10,471    | 55.6              |
| Buchanan.....        | 26,559    | 26,559    |           |                   |
| Buckingham.....      | 11,257    | 6,495     | 4,762     | 42.3              |
| Campbell.....        | 22,993    | 17,061    | 5,932     | 25.8              |
| Caroline.....        | 11,676    | 5,815     | 5,861     | 50.2              |
| Carroll.....         | 22,109    | 21,822    | 287       | 1.3               |
| Charles City.....    | 4,362     | 968       | 3,394     | 77.8              |
| Charlotte.....       | 13,511    | 7,809     | 5,702     | 42.2              |
| Chesterfield.....    | 29,729    | 23,783    | 5,946     | 20.0              |
| Clarke.....          | 6,655     | 5,444     | 1,211     | 18.2              |
| Craig.....           | 3,214     | 3,172     | 42        | 1.3               |
| Culpeper.....        | 12,159    | 8,329     | 3,830     | 31.5              |
| Cumberland.....      | 6,424     | 2,672     | 3,752     | 58.4              |



TABLE V—Continued

| Area                | Total   | White  | Non-White | Pct.<br>Non-White |
|---------------------|---------|--------|-----------|-------------------|
| Dickenson.....      | 20,116  | 19,593 | 523       | 2.6               |
| Dinwiddie.....      | 16,089  | 5,712  | 10,377    | 64.5              |
| Elizabeth City..... | 54,964  | 44,254 | 10,710    | 19.5              |
| Essex.....          | 6,516   | 3,154  | 3,362     | 51.6              |
| Fairfax.....        | 54,801  | 46,088 | 8,713     | 15.9              |
| Fauquier.....       | 19,514  | 13,835 | 5,679     | 29.1              |
| Floyd.....          | 10,968  | 10,507 | 461       | 4.2               |
| Fluvanna.....       | 7,158   | 4,352  | 2,806     | 39.2              |
| Franklin.....       | 22,332  | 19,116 | 3,216     | 14.4              |
| Frederick.....      | 13,981  | 13,562 | 419       | 3.0               |
| Giles.....          | 15,246  | 14,697 | 549       | 3.6               |
| Gloucester.....     | 9,845   | 6,567  | 3,278     | 33.3              |
| Goochland.....      | 7,462   | 3,582  | 3,880     | 52.0              |
| Grayson.....        | 17,673  | 17,001 | 672       | 3.8               |
| Greene.....         | 4,650   | 3,953  | 697       | 15.0              |
| Greensville.....    | 14,004  | 5,602  | 8,402     | 60.0              |
| Halifax.....        | 37,504  | 20,740 | 16,764    | 44.7              |
| Hanover.....        | 17,680  | 11,404 | 6,276     | 35.5              |
| Henrico.....        | 29,055  | 24,232 | 4,823     | 16.6              |
| Henry.....          | 27,538  | 20,075 | 7,463     | 27.1              |
| Highland.....       | 4,197   | 4,121  | 76        | 1.8               |
| Isle of Wight.....  | 13,300  | 6,451  | 6,849     | 51.5              |
| James City.....     | 12,488  | 8,586  | 3,902     | 31.2              |
| King George.....    | 5,828   | 3,876  | 1,952     | 33.5              |
| King & Queen.....   | 6,019   | 2,823  | 3,196     | 53.1              |
| King William.....   | 8,049   | 4,089  | 3,960     | 49.2              |
| Lancaster.....      | 7,195   | 4,087  | 3,108     | 43.2              |
| Lee.....            | 33,250  | 32,718 | 532       | 1.6               |
| Loudoun.....        | 18,937  | 15,112 | 3,825     | 20.2              |
| Louisa.....         | 11,169  | 6,634  | 4,535     | 40.6              |
| Lunenburg.....      | 13,409  | 7,469  | 5,940     | 44.3              |
| Madison.....        | 7,900   | 5,886  | 2,014     | 25.5              |
| Mathews.....        | 6,576   | 4,945  | 1,631     | 24.8              |
| Mecklenburg.....    | 29,116  | 14,238 | 14,878    | 51.1              |
| Middlesex.....      | 6,113   | 3,466  | 2,647     | 43.3              |
| Montgomery.....     | 33,653  | 31,108 | 2,545     | 7.6               |
| Nansemond.....      | 21,415  | 7,024  | 14,391    | 67.2              |
| Nelson.....         | 14,134  | 10,388 | 3,746     | 26.5              |
| New Kent.....       | 3,659   | 1,533  | 2,126     | 58.1              |
| Norfolk.....        | 110,502 | 92,890 | 17,612    | 15.9              |
| Northampton.....    | 16,924  | 7,785  | 9,139     | 54.0              |
| Northumberland..... | 8,789   | 5,159  | 3,630     | 41.3              |
| Nottoway.....       | 17,053  | 9,209  | 7,844     | 46.0              |
| Orange.....         | 11,802  | 8,415  | 3,387     | 28.7              |
| Page.....           | 13,710  | 13,093 | 617       | 4.5               |

TABLE V—Continued

| Area                | Total  | White  | Non-White | Pct.<br>Non-White |
|---------------------|--------|--------|-----------|-------------------|
| Patrick.....        | 13,103 | 12,015 | 1,088     | 8.3               |
| Pittsylvania.....   | 57,864 | 40,042 | 17,822    | 30.8              |
| Powhatan.....       | 5,491  | 3,064  | 2,427     | 44.2              |
| Prince Edward.....  | 13,278 | 6,878  | 6,400     | 48.2              |
| Prince George.....  | 19,581 | 13,744 | 5,837     | 29.8              |
| Prince William..... | 15,664 | 13,393 | 2,271     | 14.5              |
| Princess Anne.....  | 26,264 | 19,488 | 6,776     | 25.8              |
| Pulaski.....        | 24,043 | 21,855 | 2,188     | 9.1               |
| Rappahannock.....   | 6,235  | 4,857  | 1,378     | 22.1              |
| Richmond.....       | 5,860  | 3,621  | 2,239     | 38.2              |
| Roanoke.....        | 41,227 | 38,011 | 3,216     | 7.8               |
| Rockbridge.....     | 24,200 | 21,986 | 2,214     | 9.1               |
| Rockingham.....     | 38,830 | 37,313 | 1,517     | 3.9               |
| Russell.....        | 23,992 | 23,344 | 648       | 2.7               |
| Scott.....          | 25,863 | 25,579 | 284       | 1.1               |
| Shenandoah.....     | 19,815 | 19,498 | 317       | 1.6               |
| Smyth.....          | 27,558 | 27,034 | 524       | 1.9               |
| Southampton.....    | 24,853 | 9,568  | 15,285    | 61.5              |
| Spottsylvania.....  | 8,957  | 6,440  | 2,517     | 28.1              |
| Stafford.....       | 8,857  | 7,520  | 1,337     | 15.1              |
| Surry.....          | 5,319  | 2,053  | 3,266     | 61.4              |
| Sussex.....         | 11,998 | 3,959  | 8,039     | 67.0              |
| Tazewell.....       | 42,578 | 39,512 | 3,066     | 7.2               |
| Warren.....         | 11,617 | 10,537 | 1,080     | 9.3               |
| Warwick.....        | 33,950 | 24,612 | 9,338     | 27.5              |
| Washington.....     | 33,030 | 31,808 | 1,222     | 3.7               |
| Westmoreland.....   | 8,867  | 4,673  | 4,194     | 47.3              |
| Wise.....           | 49,175 | 46,520 | 2,655     | 5.4               |
| Wythe.....          | 21,389 | 20,106 | 1,283     | 6.0               |
| York.....           | 10,711 | 6,812  | 3,899     | 36.4              |

<sup>1</sup> Cities shown separately have a population of 10,000 or more. Cities of less than 10,000 are included in counties.

<sup>2</sup> The population for the State as a whole is the estimate given by the U. S. Bureau of the Census; which is based upon the following: statistics from the 1940 Census; data in registrations for war ration books; statistics of military inductions, separations, and distribution; and statistics of births and deaths. Estimates for the cities and counties were made by the State Bureau by distributing the estimate for the State as a whole, as of July 1, 1945, to each city and county in the same proportion to the State total as existed July 1, 1944. An exception was made in the cities and counties in the Hampton Roads Area, for which results of a sample census taken by the U. S. Bureau of the Census in May 1944 were used.

As no figures for color-distribution were available from the November 1943 ration registrations, estimates by color for the cities and counties were based upon the percentage color-distribution at the U. S. Census of April 1, 1940, except for the Hampton Roads Area, for which the sample census figures were used.

**SOURCE:** Bureau of Vital Statistics, Virginia State Department of Health.

TABLE V-A

## ESTIMATED CIVILIAN POPULATION OF PLACES 2,500 TO 10,000\*

| Incorporated Places of<br>2,500-10,000 at the Federal<br>Census of April 1, 1940 | Total   | White   | Colored |
|----------------------------------------------------------------------------------|---------|---------|---------|
| <b>Total</b> .....                                                               | 178,265 | 150,705 | 27,560  |
| Abingdon.....                                                                    | 3,158   | 2,616   | 542     |
| Altavista.....                                                                   | 2,919   | 2,538   | 381     |
| Appalachia.....                                                                  | 3,010   | 2,897   | 113     |
| Bedford.....                                                                     | 3,973   | 3,051   | 922     |
| Big Stone Gap.....                                                               | 4,331   | 3,934   | 397     |
| Blackstone.....                                                                  | 2,699   | 1,662   | 1,037   |
| Bluefield.....                                                                   | 3,921   | 3,617   | 304     |
| Buena Vista*.....                                                                | 6,051   | 5,688   | 363     |
| Clifton Forge*.....                                                              | 5,666   | 4,572   | 1,094   |
| Colonial Heights.....                                                            | 3,194   | 3,184   | 10      |
| Covington.....                                                                   | 6,300   | 5,331   | 969     |
| Emporia.....                                                                     | 2,735   | 1,991   | 744     |
| Falls Church.....                                                                | 2,576   | 2,420   | 156     |
| Farmville.....                                                                   | 3,475   | 2,137   | 1,338   |
| Franklin.....                                                                    | 3,466   | 1,853   | 1,608   |
| Front Royal.....                                                                 | 3,831   | 3,328   | 503     |
| Galax.....                                                                       | 3,195   | 3,048   | 147     |
| Hampton*.....                                                                    | 8,415   | 6,774   | 1,641   |
| Harrisonburg*.....                                                               | 7,681   | 7,005   | 676     |
| Hopewell*.....                                                                   | 10,499  | 8,840   | 1,659   |
| Lexington.....                                                                   | 3,914   | 2,789   | 1,125   |
| Marion.....                                                                      | 5,177   | 4,917   | 260     |
| Norton.....                                                                      | 4,006   | 3,666   | 340     |
| Phoebus.....                                                                     | 3,503   | 2,642   | 861     |
| Pocahontas.....                                                                  | 2,623   | 1,701   | 922     |
| Pulaski.....                                                                     | 8,792   | 7,856   | 936     |
| Radford*.....                                                                    | 9,143   | 8,412   | 731     |
| Salem.....                                                                       | 5,737   | 5,000   | 737     |
| Saltville.....                                                                   | 2,650   | 2,600   | 50      |
| South Boston.....                                                                | 5,252   | 3,393   | 1,859   |
| South Norfolk*.....                                                              | 11,262  | 9,467   | 1,795   |
| Venton.....                                                                      | 3,455   | 3,194   | 261     |
| Virginia Beach.....                                                              | 2,600   | 2,240   | 360     |
| Waynesboro.....                                                                  | 7,373   | 6,683   | 690     |
| Williamsburg*.....                                                               | 7,030   | 5,540   | 1,490   |
| Wytheville.....                                                                  | 4,653   | 4,114   | 539     |

NOTE: These towns are included in counties in preceding table.

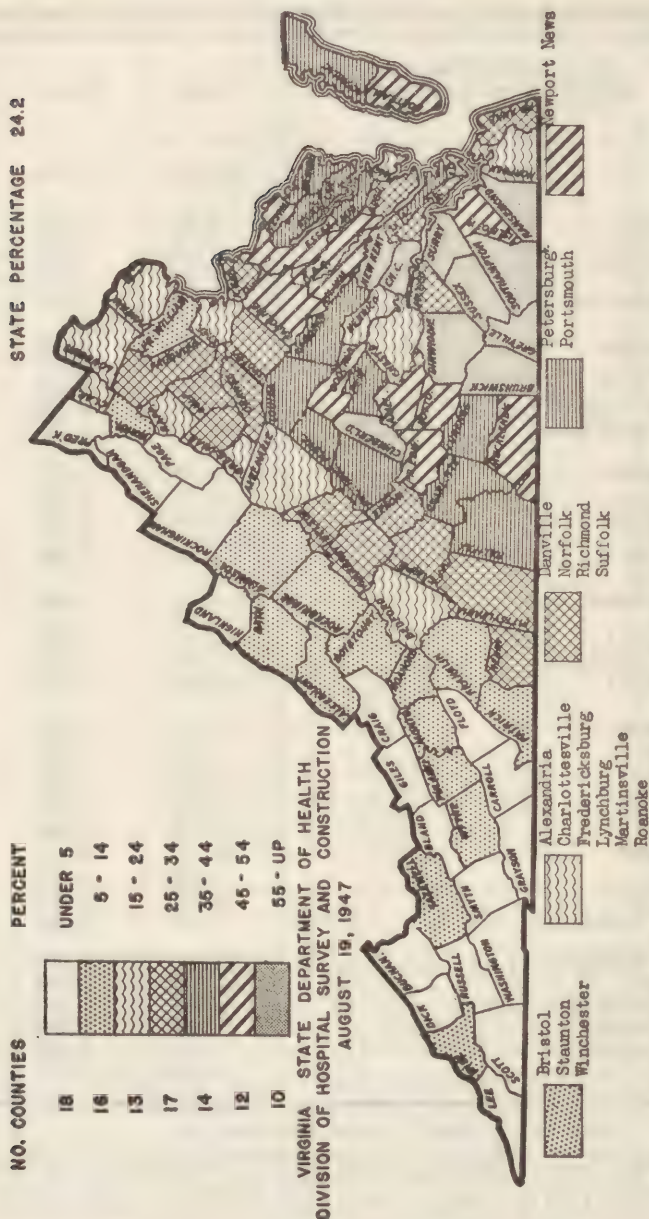
- \* Populations are those of the U. S. Census of April 1, 1940, except for six towns\*—Buena Vista, Clifton Forge, Harrisonburg, Hopewell, Radford, and Williamsburg, which are based upon registrations for ration book No. 4 (November 1943); and two towns\*—Hampton and South Norfolk, which are based upon a sample census of the Hampton Roads Area taken by the U. S. Census Bureau in May 1944. The color-distribution is that of the 1940 Census, except for Hampton and South Norfolk which are based upon a sample census.

SOURCE: Virginia State Department of Health.



MAP 2

# PERCENT NONWHITE OF TOTAL POPULATION VIRGINIA CITIES AND COUNTIES, 1945



Map 2 - The non-white population of the state is heavily concentrated in the southeast, in areas which formerly had large slave-holdings. West of the Blue Ridge less than 15% of the population is Negro.



**TABLE VI**  
**AGE TRENDS BY COLOR AND SEX, VIRGINIA, 1900-1940**

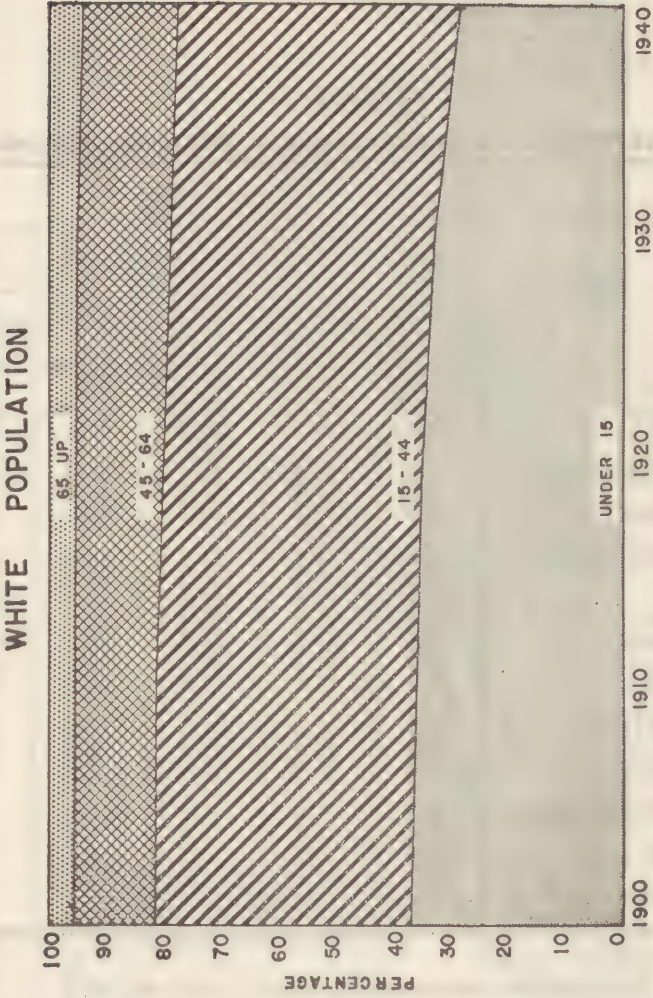
| Age Groups                | Census Year |           |           |           |           |
|---------------------------|-------------|-----------|-----------|-----------|-----------|
|                           | 1940        | 1930      | 1920      | 1910      | 1900      |
| All Ages.....             | 2,677,773   | 2,421,851 | 2,309,187 | 2,061,612 | 1,854,184 |
| White.....                | 2,015,583   | 1,770,441 | 1,617,909 | 1,615,809 | 1,192,855 |
| Percent.....              | 75.3        | 73.1      | 70.1      | 67.4      | 64.3      |
| Non-White.....            | 662,190     | 651,410   | 691,278   | 671,803   | 661,329   |
| Percent.....              | 24.7        | 26.9      | 29.9      | 32.6      | 35.7      |
| Percent Under 15 years... | 28.6        | 33.8      | 35.7      | 37.0      | 38.3      |
| White.....                | 27.7        | 33.0      | 35.4      | 36.0      | 37.1      |
| Non-White.....            | 31.0        | 36.0      | 36.7      | 38.4      | 40.5      |
| Percent 15-44 Years.....  | 48.8        | 45.5      | 46.0      | 45.5      | 44.7      |
| White.....                | 49.0        | 45.6      | 45.4      | 45.5      | 45.0      |
| Male.....                 | 24.8        | 22.8      | 23.0      | 22.8      | 22.5      |
| Female.....               | 24.2        | 22.8      | 22.4      | 22.7      | 22.5      |
| Non-White.....            | 47.8        | 45.0      | 46.0      | 45.7      | 44.1      |
| Male.....                 | 23.7        | 21.7      | 22.1      | 22.0      | 21.1      |
| Female.....               | 24.1        | 23.3      | 23.9      | 23.7      | 23.0      |
| Percent 45-64 Years.....  | 16.8        | 15.9      | 14.0      | 13.2      | 12.8      |
| White.....                | 17.2        | 16.2      | 14.5      | 13.7      | 13.5      |
| Non-White.....            | 15.6        | 14.9      | 13.4      | 12.2      | 11.6      |
| Percent 65 Years and Over | 5.8         | 4.8       | 4.2       | 4.1       | 3.9       |
| White.....                | 6.0         | 5.1       | 4.6       | 4.4       | 4.2       |
| Non-White.....            | 5.1         | 3.9       | 3.7       | 3.5       | 3.0       |
| Not Reported.....         | *           | *         | *         | *         | *         |

\* Less than 1%.

SOURCE: Population Census, 1940, Second Series, Virginia, Table 8a, Page 18.

CHART 4  
AGE TRENDS OF THE POPULATION  
VIRGINIA 1900 - 1940

FIGURE 1



POPULATION CHANGES IN VIRGINIA  
1930 - 1943

# AGE TRENDS OF THE POPULATION VIRGINIA 1900 - 1940 NONWHITE POPULATION

CHART 4  
FIGURE 2

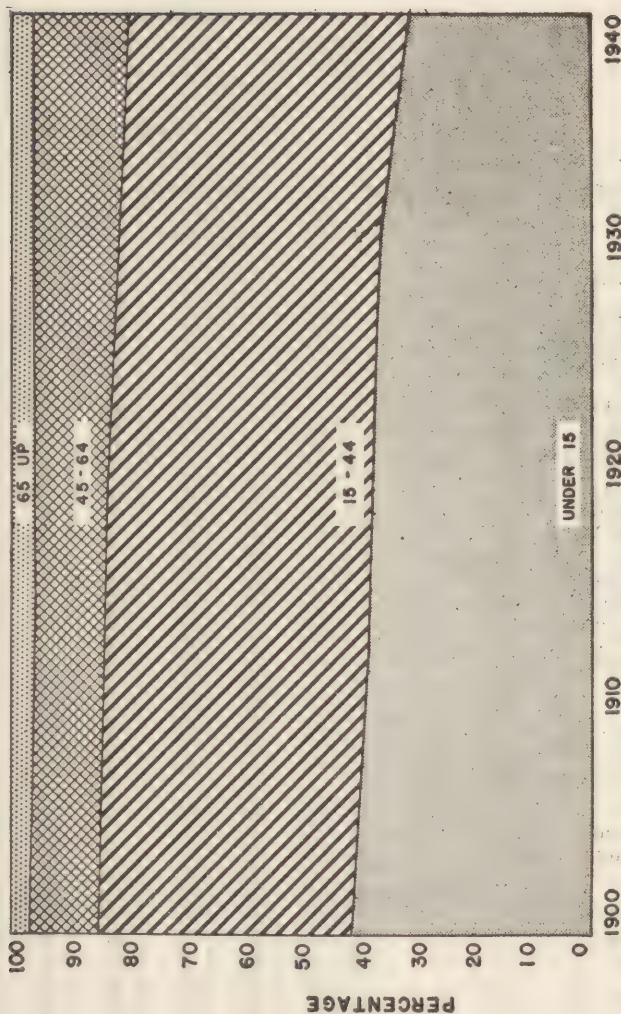


Chart 4 - Both white and non-white population in Virginia reflect the national trend toward an increasing percentage of old persons in the population. Virginia has, however, a predominantly young population. The non-white group has slightly more persons in the younger age groups than the white.



**TABLE VII**  
**PERCENT POPULATION IN MAJOR AGE GROUPS, VIRGINIA**  
**CITIES AND COUNTIES, 1940**

| County                 | Total<br>Popula-<br>tion | Percentage  |       |      |             | 45-64 | 65 up |
|------------------------|--------------------------|-------------|-------|------|-------------|-------|-------|
|                        |                          | Under<br>15 | 15-44 |      |             |       |       |
|                        |                          |             | Total | Male | Fe-<br>male |       |       |
| <b>The STATE</b> ..... | 2,677,773                | 28.6        | 48.8  | 48.8 | 48.7        | 16.8  | 5.8   |
| <b>URBAN</b> .....     | 944,675                  | 22.0        | 54.0  | 54.0 | 54.1        | 18.4  | 5.6   |
| <b>RURAL</b> .....     | 1,733,098                | 32.2        | 45.9  | 46.1 | 45.6        | 16.0  | 5.9   |
| Alexandria.....        | 33,523                   | 23          | 55    | 54   | 55          | 17    | 5     |
| Bristol.....           | 9,768                    | 25          | 53    | 52   | 53          | 17    | 5     |
| Buena Vista.....       | 4,335                    | 32          | 49    | 48   | 50          | 14    | 5     |
| Charlottesville.....   | 19,400                   | 22          | 54    | 54   | 53          | 18    | 6     |
| Clifton Forge.....     | 6,461                    | 23          | 48    | 46   | 49          | 23    | 6     |
| Danville.....          | 32,749                   | 24          | 54    | 53   | 55          | 17    | 5     |
| Fredericksburg.....    | 10,066                   | 23          | 56    | 56   | 55          | 16    | 5     |
| Hampton.....           | 5,898                    | 18          | 54    | 55   | 53          | 21    | 7     |
| Harrisonburg.....      | 8,768                    | 22          | 52    | 51   | 53          | 19    | 7     |
| Hopewell.....          | 8,679                    | 26          | 55    | 55   | 55          | 16    | 3     |
| Lynchburg.....         | 44,541                   | 24          | 52    | 52   | 53          | 18    | 6     |
| Martinsville.....      | 10,080                   | 26          | 59    | 58   | 59          | 12    | 3     |
| Newport News.....      | 37,067                   | 23          | 55    | 55   | 55          | 18    | 4     |
| Norfolk.....           | 144,332                  | 21          | 55    | 57   | 54          | 19    | 5     |
| South Norfolk.....     | 8,038                    | 26          | 52    | 51   | 52          | 17    | 5     |
| Petersburg.....        | 30,631                   | 23          | 52    | 52   | 53          | 19    | 6     |
| Portsmouth.....        | 50,745                   | 22          | 55    | 56   | 54          | 18    | 5     |
| Radford.....           | 6,990                    | 28          | 51    | 50   | 53          | 16    | 5     |
| Richmond.....          | 193,042                  | 20          | 55    | 54   | 55          | 20    | 5     |
| Roanoke.....           | 69,287                   | 22          | 53    | 52   | 54          | 19    | 6     |
| Staunton.....          | 13,337                   | 17          | 49    | 49   | 49          | 24    | 10    |
| Suffolk.....           | 11,343                   | 21          | 54    | 54   | 55          | 19    | 6     |
| Williamsburg.....      | 3,942                    | 11          | 51    | 53   | 48          | 27    | 11    |
| Winchester.....        | 12,095                   | 22          | 52    | 53   | 52          | 19    | 7     |
| Accomac.....           | 33,030                   | 26          | 45    | 45   | 45          | 21    | 8     |
| Albemarle.....         | 24,652                   | 32          | 44    | 44   | 44          | 17    | 7     |
| Alleghany.....         | 22,688                   | 31          | 51    | 50   | 51          | 14    | 4     |
| Amelia.....            | 8,495                    | 33          | 41    | 42   | 41          | 18    | 8     |
| Amherst.....           | 20,273                   | 31          | 48    | 47   | 48          | 16    | 5     |
| Appomattox.....        | 9,020                    | 31          | 45    | 45   | 44          | 17    | 7     |
| Arlington.....         | 57,040                   | 22          | 58    | 59   | 58          | 16    | 4     |
| Augusta.....           | 42,772                   | 30          | 47    | 47   | 47          | 17    | 6     |
| Bath.....              | 7,191                    | 31          | 47    | 47   | 47          | 16    | 6     |
| Bedford.....           | 29,687                   | 31          | 44    | 44   | 44          | 17    | 8     |
| Bland.....             | 6,731                    | 34          | 46    | 46   | 46          | 15    | 5     |
| Botetourt.....         | 16,447                   | 31          | 45    | 46   | 45          | 17    | 7     |
| Brunswick.....         | 19,575                   | 36          | 43    | 43   | 43          | 15    | 6     |
| Buchanan.....          | 31,477                   | 44          | 45    | 44   | 45          | 9     | 2     |
| Buckingham.....        | 13,398                   | 34          | 42    | 43   | 41          | 17    | 7     |
| Campbell.....          | 26,048                   | 32          | 47    | 47   | 47          | 15    | 6     |
| Caroline.....          | 13,945                   | 33          | 43    | 43   | 42          | 18    | 6     |
| Carroll.....           | 25,904                   | 36          | 44    | 44   | 45          | 14    | 6     |

TABLE VII—Continued

| County              | Total<br>Popula-<br>tion | Percentage  |       |      |             | 45-64 | 65 up |
|---------------------|--------------------------|-------------|-------|------|-------------|-------|-------|
|                     |                          | Under<br>15 | 15-44 |      |             |       |       |
|                     |                          |             | Total | Male | Fe-<br>male |       |       |
| Charles City.....   | 4,275                    | 34          | 42    | 44   | 41          | 18    | 6     |
| Charlotte.....      | 15,861                   | 35          | 44    | 44   | 43          | 16    | 5     |
| Chesterfield.....   | 31,183                   | 27          | 51    | 50   | 51          | 17    | 5     |
| Clarke.....         | 7,159                    | 28          | 45    | 45   | 45          | 19    | 8     |
| Craig.....          | 3,769                    | 30          | 44    | 44   | 44          | 18    | 8     |
| Culpeper.....       | 13,365                   | 29          | 45    | 45   | 44          | 18    | 8     |
| Cumberland.....     | 7,505                    | 33          | 43    | 43   | 42          | 17    | 7     |
| Dickenson.....      | 21,266                   | 42          | 45    | 44   | 45          | 10    | 3     |
| Dinwiddie.....      | 18,166                   | 26          | 47    | 48   | 45          | 20    | 7     |
| Elizabeth City..... | 32,283                   | 20          | 59    | 62   | 54          | 18    | 3     |
| Essex.....          | 7,006                    | 32          | 41    | 42   | 40          | 19    | 8     |
| Fairfax.....        | 40,929                   | 26          | 52    | 55   | 48          | 17    | 5     |
| Fauquier.....       | 21,039                   | 31          | 44    | 44   | 44          | 18    | 7     |
| Floyd.....          | 11,967                   | 32          | 44    | 43   | 44          | 17    | 7     |
| Fluvanna.....       | 7,088                    | 30          | 42    | 42   | 41          | 19    | 9     |
| Franklin.....       | 25,864                   | 34          | 45    | 46   | 43          | 15    | 6     |
| Frederick.....      | 14,008                   | 31          | 44    | 44   | 44          | 18    | 7     |
| Giles.....          | 14,635                   | 33          | 47    | 48   | 46          | 15    | 5     |
| Gloucester.....     | 9,548                    | 27          | 43    | 43   | 43          | 21    | 9     |
| Goochland.....      | 8,454                    | 30          | 46    | 47   | 45          | 17    | 7     |
| Grayson.....        | 21,916                   | 33          | 46    | 45   | 46          | 15    | 6     |
| Greene.....         | 5,218                    | 35          | 41    | 42   | 40          | 16    | 8     |
| Greensville.....    | 14,866                   | 35          | 48    | 48   | 48          | 13    | 4     |
| Halifax.....        | 41,271                   | 34          | 46    | 46   | 46          | 15    | 5     |
| Hanover.....        | 18,500                   | 28          | 47    | 48   | 46          | 18    | 7     |
| Henrico.....        | 41,960                   | 24          | 52    | 51   | 53          | 19    | 5     |
| Henry.....          | 26,481                   | 36          | 49    | 49   | 49          | 11    | 4     |
| Highland.....       | 4,875                    | 32          | 43    | 43   | 43          | 18    | 7     |
| Isle of Wight.....  | 13,381                   | 32          | 46    | 45   | 46          | 17    | 5     |
| James City.....     | 4,907                    | 26          | 47    | 46   | 47          | 20    | 7     |
| King & Queen.....   | 6,954                    | 32          | 41    | 41   | 40          | 19    | 8     |
| King George.....    | 5,431                    | 30          | 45    | 45   | 45          | 18    | 7     |
| King William.....   | 7,855                    | 29          | 45    | 45   | 45          | 19    | 7     |
| Lancaster.....      | 8,786                    | 28          | 45    | 45   | 45          | 20    | 7     |
| Lee.....            | 39,296                   | 39          | 45    | 44   | 45          | 13    | 3     |
| Loudoun.....        | 20,291                   | 30          | 43    | 43   | 43          | 19    | 8     |
| Louisa.....         | 13,665                   | 32          | 41    | 42   | 40          | 19    | 8     |
| Lunenburg.....      | 13,844                   | 32          | 44    | 44   | 44          | 18    | 6     |
| Madison.....        | 8,465                    | 31          | 43    | 45   | 41          | 17    | 9     |
| Mathews.....        | 7,149                    | 23          | 42    | 41   | 42          | 24    | 11    |
| Mecklenburg.....    | 31,933                   | 35          | 46    | 45   | 45          | 14    | 5     |
| Middlesex.....      | 6,673                    | 28          | 41    | 41   | 40          | 22    | 9     |
| Montgomery.....     | 21,206                   | 31          | 47    | 46   | 47          | 16    | 6     |
| Nansemond.....      | 22,771                   | 31          | 48    | 47   | 48          | 16    | 5     |
| Nelson.....         | 16,241                   | 35          | 43    | 43   | 43          | 16    | 6     |
| New Kent.....       | 4,092                    | 30          | 45    | 45   | 45          | 17    | 8     |
| Norfolk.....        | 35,828                   | 29          | 50    | 49   | 51          | 17    | 4     |

TABLE VII—Continued

| County              | Total<br>Popula-<br>tion | Percentage  |       |      |             | 45-64 | 65 up |
|---------------------|--------------------------|-------------|-------|------|-------------|-------|-------|
|                     |                          | Under<br>15 | 15-44 |      |             |       |       |
|                     |                          |             | Total | Male | Fe-<br>male |       |       |
| Northampton.....    | 17,597                   | 29          | 46    | 45   | 46          | 19    | 6     |
| Northumberland..... | 10,463                   | 29          | 46    | 47   | 45          | 19    | 6     |
| Nottoway.....       | 15,556                   | 30          | 46    | 45   | 46          | 18    | 6     |
| Orange.....         | 12,649                   | 30          | 45    | 45   | 45          | 18    | 7     |
| Page.....           | 14,863                   | 31          | 44    | 44   | 44          | 17    | 8     |
| Patrick.....        | 16,613                   | 36          | 43    | 43   | 43          | 14    | 7     |
| Pittsylvania.....   | 61,697                   | 35          | 47    | 46   | 47          | 14    | 4     |
| Powhatan.....       | 5,671                    | 28          | 47    | 51   | 41          | 17    | 8     |
| Prince Edward.....  | 14,922                   | 31          | 45    | 45   | 44          | 17    | 7     |
| Prince George.....  | 12,226                   | 28          | 52    | 55   | 48          | 16    | 4     |
| Princess Anne.....  | 19,984                   | 29          | 48    | 48   | 49          | 18    | 5     |
| Prince William..... | 17,738                   | 23          | 57    | 64   | 47          | 14    | 6     |
| Pulaski.....        | 22,767                   | 33          | 48    | 47   | 49          | 14    | 5     |
| Rappahannock.....   | 7,208                    | 34          | 42    | 43   | 41          | 16    | 8     |
| Richmond.....       | 6,634                    | 31          | 45    | 45   | 45          | 18    | 6     |
| Roanoke.....        | 42,897                   | 28          | 50    | 49   | 51          | 17    | 5     |
| Rockbridge.....     | 22,384                   | 31          | 46    | 45   | 46          | 17    | 6     |
| Rockingham.....     | 31,289                   | 30          | 45    | 45   | 44          | 18    | 7     |
| Russell.....        | 26,627                   | 38          | 44    | 43   | 45          | 14    | 4     |
| Scott.....          | 26,989                   | 35          | 46    | 45   | 46          | 14    | 5     |
| Shenandoah.....     | 20,898                   | 29          | 43    | 43   | 43          | 20    | 8     |
| Smyth.....          | 28,861                   | 34          | 46    | 45   | 46          | 15    | 5     |
| Southampton.....    | 26,442                   | 33          | 47    | 48   | 47          | 15    | 5     |
| Spotsylvania.....   | 9,905                    | 32          | 44    | 45   | 43          | 17    | 7     |
| Stafford.....       | 9,548                    | 28          | 49    | 51   | 46          | 17    | 6     |
| Surry.....          | 6,193                    | 30          | 43    | 43   | 43          | 20    | 7     |
| Sussex.....         | 12,485                   | 34          | 45    | 45   | 46          | 16    | 5     |
| Tazewell.....       | 41,607                   | 36          | 47    | 47   | 47          | 13    | 4     |
| Warren.....         | 11,352                   | 29          | 48    | 49   | 48          | 17    | 6     |
| Warwick.....        | 9,248                    | 29          | 50    | 49   | 51          | 17    | 4     |
| Washington.....     | 38,197                   | 34          | 45    | 44   | 45          | 15    | 6     |
| Westmoreland.....   | 9,512                    | 32          | 43    | 43   | 42          | 18    | 7     |
| Wise.....           | 52,458                   | 37          | 47    | 46   | 48          | 13    | 3     |
| Wythe.....          | 22,721                   | 34          | 45    | 45   | 45          | 15    | 6     |
| York.....           | 8,857                    | 29          | 47    | 47   | 47          | 18    | 6     |

SOURCE: Population Census, 1940, Virginia, Second Series, Table 22, pp. 48-72.



# MAP 3 PEOPLE UNDER 15 YEARS OF AGE VIRGINIA CITIES AND COUNTIES, 1940

STATE PERCENTAGE  
URBAN 28.6  
RURAL 32.2

NO. COUNTIES

PERCENT



2 40 - UP  
15 35 - 39  
54 30 - 34  
24 25 - 29  
5 UNDER 25

★ INDEPENDENT CITIES - OMIT

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

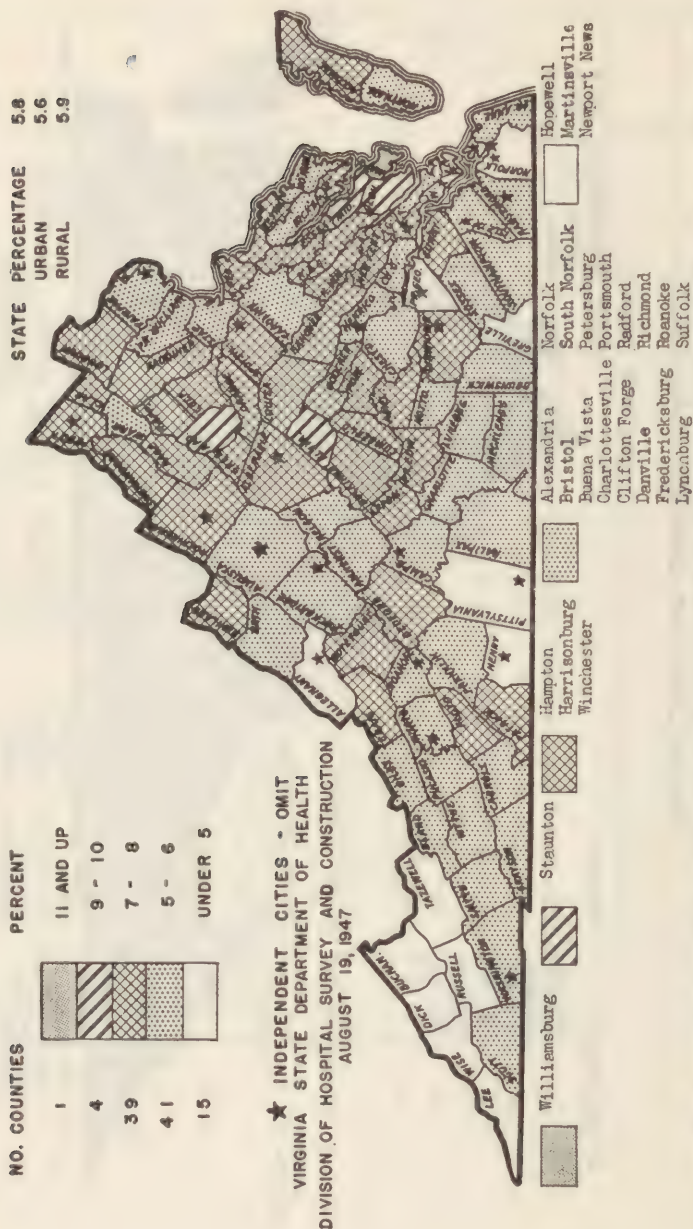
Alexandria  
Charlottesville  
Clifton Forge  
Denville  
Fredericksburg  
Hampton  
Harrisonburg  
Lynchburg  
Newport News  
Norfolk  
Petersburg  
Portsmouth  
Richmond  
Roanoke  
Staunton  
Suffolk  
Williamsburg  
Winchester  
Bristol  
Hopewell  
Martinsville  
South Norfolk  
Radford  
Buena Vista

Map 3 - The southwest, with its high birth rates, has a large percentage of young persons in the population, as do the counties of the southern Piedmont. Urban areas, the northern coastal plain and the Eastern Shore, have a relatively small percentage of persons under 15 years of age.



# PEOPLE OVER 65 YEARS OF AGE VIRGINIA CITIES AND COUNTIES, 1940

MAP 4



Map 4 - The picture here is almost the reverse of that shown in the preceding map. Counties of the southwest, southern Piedmont and Southeast have a small percentage of old persons. There is a large concentration of persons over 65 in Mathews, Gloucester, Middlesex, Madison and Fluvanna counties.

## BIRTHS

The number and rate of births in an area have a direct bearing on the number of hospital beds for obstetrical patients and the number of bassinets needed.

The total number of children ever born<sup>1</sup> decreased 35 per cent in Virginia between 1910 and 1940. (Computed from Table 8.) Life-time fertility ratios show a greater number of children born to non-whites than whites, with the highest ratio for non-white rural farm women and the lowest for urban white women. For both races, fertility ratios are higher in rural than in urban areas.

The war created a temporary increase in the steadily declining birth rate. A study of health department reports shows that the resident birth rate in Virginia rose from 20.3 in 1939 to 24.7 in 1943. However, population experts predict a return to the lower rate, with a continued long-time downward trend. Periodic fluctuations in the proportionate number of births will occur as recent newborn females attain reproduction age.

In 1939-40 there were 20.8 live births per 1,000 population for the state as a whole. (Table 9.) The birth rate for non-whites was higher than for whites (23.3 as compared with 19.9). Higher birth rates are most prevalent in western Virginia, particularly in the south-west. (Map 5.) Counties in the coastal area have low total birth rates, apparently due to the relatively small number of white births. Non-white birth rates in this area are much higher than white. Birth rates ranged from 10.6 in Mathews county to 37.9 in Buchanan.

<sup>1</sup> In the classification of women by number of children ever born, all children ever born alive to a woman during her lifetime are counted,—an indication of lifetime rather than current fertility.

TABLE VIII

NUMBER OF CHILDREN EVER BORN\* PER 1,000 WOMEN 15 TO 49 YEARS OLD, STANDARDIZED FOR AGE OF WOMEN, URBAN AND RURAL, VIRGINIA, 1940 AND 1910

|                     | 1940  |           | 1910  |           |
|---------------------|-------|-----------|-------|-----------|
|                     | White | Non-White | White | Non-White |
| Total.....          | 1,557 | 1,776     | 2,365 | 2,791     |
| Urban.....          | 1,092 | 1,193     | 1,708 | 1,888     |
| Rural non-farm..... | 1,717 | 1,960     | 2,448 | 2,946     |
| Rural farm.....     | 2,045 | 2,532     | 2,693 | 3,474     |

\* In the classification of women by number of children ever born, all children ever born alive to a woman during her lifetime are counted—an indication of lifetime rather than current fertility.

SOURCE: Population Census, 1940, "Differential Fertility, 1940 and 1910", Table 10, p. 25.

**TABLE IX**  
**LIVE BIRTHS PER 1,000 POPULATION, BY COLOR,**  
**VIRGINIA CITIES AND COUNTIES, 1939-40**

| Area                 | Average Birth Rate 1939-40 |       |           |
|----------------------|----------------------------|-------|-----------|
|                      | Total                      | White | Non-White |
| <b>STATE</b> .....   | 20.8                       | 19.9  | 23.3      |
| <b>Cities</b>        |                            |       |           |
| Alexandria.....      | 20.5                       | 20.9  | 18.5      |
| Bristol.....         | 23.8                       | 25.1  | 13.4      |
| Charlottesville..... | 17.6                       | 17.3  | 18.5      |
| Danville.....        | 17.8                       | 17.5  | 18.7      |
| Fredericksburg.....  | 18.6                       | 18.9  | 17.0      |
| Lynchburg.....       | 17.8                       | 16.8  | 21.2      |
| Martinsville.....    | 24.8                       | 23.6  | 29.6      |
| Newport News.....    | 18.5                       | 17.4  | 19.9      |
| Norfolk.....         | 17.4                       | 16.6  | 19.0      |
| Petersburg.....      | 18.4                       | 16.5  | 20.9      |
| Portsmouth.....      | 18.1                       | 17.4  | 19.1      |
| Richmond.....        | 15.9                       | 14.5  | 19.0      |
| Roanoke.....         | 17.1                       | 17.0  | 17.6      |
| Staunton.....        | 14.8                       | 13.9  | 21.6      |
| Suffolk.....         | 17.8                       | 14.9  | 23.4      |
| Winchester.....      | 17.0                       |       |           |
| <b>Counties</b>      |                            |       |           |
| Accomac.....         | 15.2                       | 12.8  | 19.1      |
| Albemarle.....       | 21.0                       | 21.2  | 20.2      |
| Alleghany.....       | 18.3                       |       |           |
| Amelia.....          | 25.4                       | 23.2  | 27.4      |
| Amherst.....         | 19.8                       | 16.5  | 27.3      |
| Appomattox.....      | 18.4                       | 16.6  | 23.2      |
| Arlington.....       | 22.0                       |       |           |
| Augusta.....         | 21.1                       |       |           |
| Bath.....            | 21.3                       | 22.5  | 11.9      |
| Bedford.....         | 19.4                       | 18.1  | 23.9      |
| Bland.....           | 24.1                       |       |           |
| Botetourt.....       | 22.0                       | 21.9  | 22.9      |
| Brunswick.....       | 25.5                       | 19.8  | 30.0      |
| Buchanan.....        | 37.9                       |       |           |
| Buckingham.....      | 22.0                       | 18.9  | 26.3      |
| Campbell.....        | 25.0                       | 23.2  | 30.4      |
| Caroline.....        | 21.3                       | 15.5  | 27.0      |
| Carroll.....         | 21.0                       |       |           |
| Charles City.....    | 24.1                       | 7.1   | 28.8      |
| Charlotte.....       | 23.7                       | 20.1  | 28.7      |



TABLE IX—Continued

| Area                | Average Birth Rate 1939-40 |       |           |
|---------------------|----------------------------|-------|-----------|
|                     | Total                      | White | Non-White |
| Chesterfield.....   | 15.5                       | 13.2  | 24.7      |
| Clarke.....         | 23.2                       | 23.1  | 23.7      |
| Craig.....          | 18.0                       |       |           |
| Culpeper.....       | 20.3                       | 17.3  | 26.7      |
| Cumberland.....     | 19.9                       | 16.6  | 22.1      |
| Dickenson.....      | 34.8                       |       |           |
| Dinwiddie.....      | 18.0                       | 15.6  | 19.3      |
| Elizabeth City..... | 16.1                       | 15.4  | 18.5      |
| Essex.....          | 20.7                       | 19.2  | 22.1      |
| Fairfax.....        | 16.9                       | 17.5  | 14.0      |
| Fauquier.....       | 20.2                       | 18.7  | 24.1      |
| Floyd.....          | 23.9                       |       |           |
| Fluvanna.....       | 19.3                       | 17.2  | 22.7      |
| Franklin.....       | 22.8                       | 22.6  | 24.1      |
| Frederick.....      | 19.7                       |       |           |
| Giles.....          | 25.4                       |       |           |
| Gloucester.....     | 16.8                       | 16.6  | 17.3      |
| Goochland.....      | 17.8                       | 13.9  | 21.4      |
| Grayson.....        | 22.4                       |       |           |
| Greene.....         | 24.9                       | 25.5  | 21.7      |
| Greensville.....    | 24.3                       | 19.0  | 27.8      |
| Halifax.....        | 24.4                       | 20.4  | 29.2      |
| Hanover.....        | 20.6                       | 17.3  | 26.8      |
| Henrico.....        | 12.5                       | 11.2  | 19.0      |
| Henry.....          | 30.3                       | 26.8  | 39.8      |
| Highland.....       | 30.9                       |       |           |
| Isle of Wight.....  | 21.0                       | 16.4  | 25.3      |
| James City.....     | 17.4                       | 11.6  | 28.4      |
| King George.....    | 20.6                       | 17.9  | 23.0      |
| King & Queen.....   | 20.4                       | 18.1  | 25.0      |
| King William.....   | 20.5                       | 16.9  | 24.2      |
| Lancaster.....      | 19.7                       | 18.4  | 21.3      |
| Lee.....            | 27.6                       |       |           |
| Loudoun.....        | 20.2                       | 19.6  | 22.6      |
| Louisa.....         | 20.9                       | 17.6  | 25.7      |
| Lunenburg.....      | 21.2                       | 15.4  | 28.6      |
| Madison.....        | 20.1                       | 19.3  | 22.4      |
| Mathews.....        | 10.6                       | 9.4   | 14.4      |
| Mecklenburg.....    | 25.7                       | 19.6  | 31.6      |
| Middlesex.....      | 15.7                       | 11.1  | 21.8      |
| Montgomery.....     | 20.7                       |       |           |
| Nansemond.....      | 21.0                       | 16.1  | 23.4      |
| Nelson.....         | 24.6                       | 22.2  | 31.3      |
| New Kent.....       | 16.6                       | 11.4  | 20.4      |
| Norfolk.....        | 18.5                       | 14.9  | 19.1      |

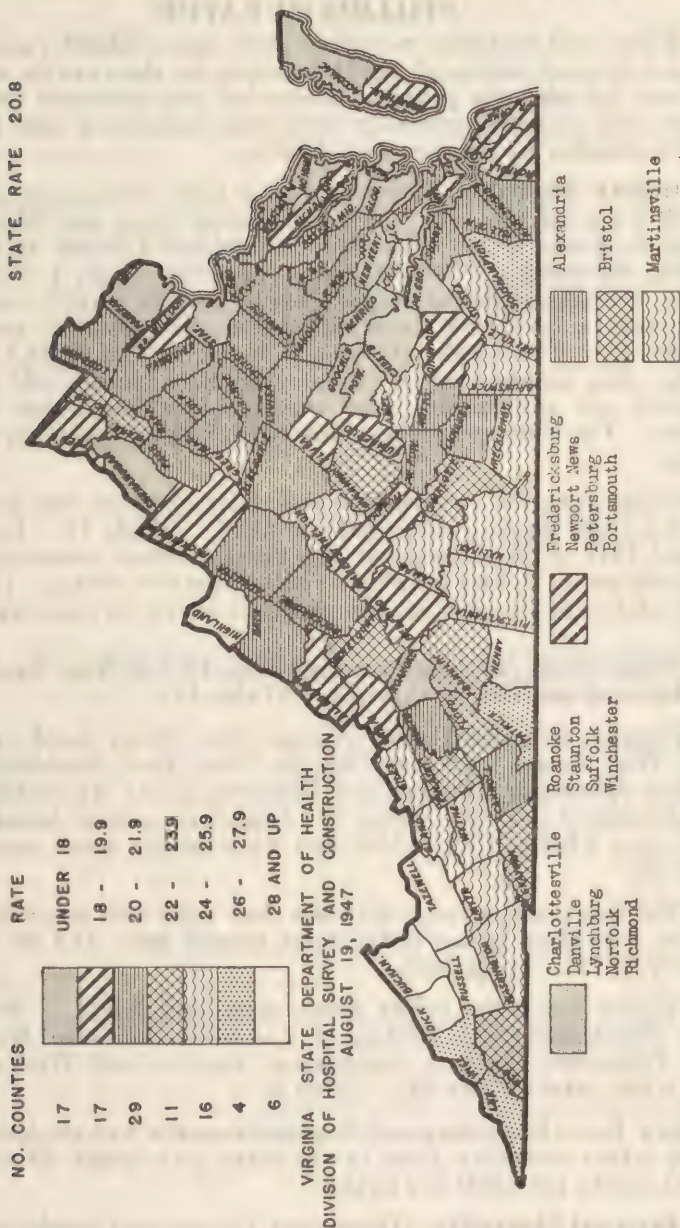
TABLE IX—Continued

| Area                | Average Birth Rate 1939-40 |       |           |
|---------------------|----------------------------|-------|-----------|
|                     | Total                      | White | Non-White |
| Northampton.....    | 19.6                       | 13.0  | 25.3      |
| Northumberland..... | 16.2                       | 12.6  | 21.4      |
| Nottoway.....       | 21.2                       | 17.3  | 25.8      |
| Orange.....         | 21.2                       | 18.3  | 28.4      |
| Page.....           | 21.1                       |       |           |
| Patrick.....        | 26.1                       |       |           |
| Pittsylvania.....   | 24.8                       | 22.1  | 30.8      |
| Powhatan.....       | 17.9                       | 16.0  | 20.4      |
| Prince Edward.....  | 21.5                       | 17.3  | 26.1      |
| Prince George.....  | 17.3                       | 15.1  | 22.5      |
| Prince William..... | 19.2                       | 18.6  | 22.8      |
| Princess Anne.....  | 18.4                       | 15.5  | 22.9      |
| Pulaski.....        | 23.7                       |       |           |
| Rappahannock.....   | 21.9                       | 23.1  | 17.6      |
| Richmond.....       | 19.4                       | 16.6  | 24.1      |
| Roanoke.....        | 17.6                       |       |           |
| Rockbridge.....     | 20.8                       |       |           |
| Rockingham.....     | 18.8                       |       |           |
| Russell.....        | 29.8                       |       |           |
| Scott.....          | 23.4                       |       |           |
| Shenandoah.....     | 17.9                       |       |           |
| Smyth.....          | 24.3                       |       |           |
| Southampton.....    | 26.2                       | 19.3  | 30.6      |
| Spotsylvania.....   | 21.6                       | 20.2  | 25.1      |
| Stafford.....       | 16.5                       | 14.7  | 27.0      |
| Surry.....          | 21.2                       | 13.8  | 25.9      |
| Sussex.....         | 25.1                       | 15.9  | 29.7      |
| Tazewell.....       | 30.8                       |       |           |
| Warren.....         | 22.6                       |       |           |
| Warwick.....        | 19.1                       | 18.3  | 21.4      |
| Washington.....     | 24.1                       |       |           |
| Westmoreland.....   | 21.5                       | 15.9  | 27.8      |
| Wise.....           | 27.4                       |       |           |
| Wythe.....          | 24.2                       |       |           |
| York.....           | 21.1                       | 18.1  | 26.4      |

SOURCE: Vital Statistics of the U. S., Supplement 1939-40, Part III, Table 1, pp. 156-159.

MAP 5

# LIVE BIRTHS PER 1,000 POPULATION VIRGINIA CITIES AND COUNTIES, 1939 - 40



Map 5 - High birth rates are most prevalent in the counties of the southwest and the southern Piedmont. Birth rates are low in urban areas and in middle Virginia, the Tidewater section and the Eastern Shore.



## INFANT AND MATERNAL MORTALITY AND STILLBIRTH RATIOS

Infant and maternal mortality rates and stillbirth ratios are regarded as good indices of health services, for they can be noticeably reduced by adequate prenatal, obstetrical and postnatal care. High infant and maternal mortality rates often indicate a need for better hospitalization for mothers and children.

**Infant Mortality**—Virginia has a high infant mortality rate. In 1944 the infant death rate in the United States was 39.8, while in Virginia it was 47.1.<sup>1</sup> This high rate places Virginia 41st in rank among the states. When the rates are studied from a racial standpoint, it is apparent that Virginia's poor showing largely results from an excessive number of infant deaths in the non-white population. (Table 10) The death rate among Negro infants is 52.5 per cent higher than among whites. Conditions most unfavorable to infant survival are apparently found among non-whites living in urban places. The white group has a low rate of infant mortality in urban areas.

Infant mortality rates for the state fluctuate from year to year but show a large decrease from 1917 to 1945. (Table 11) During the period 1941 to 1945 inclusive, the average infant mortality rate in Virginia was 51.9, 44.2 for whites and 74.7 for non-whites. (Table 12) The total rates for sixty-two counties were above the state rate. (Map 6)

White infant death rates ranged from 15.7 in New Kent to 71.9 in Highland and Greene Counties. (Table 12)

Counties with the highest average white infant death rates were Lee, Wise, Scott, Buchanan, Smyth, Giles, Bath, Highland, Appomatox, Albemarle, Greene, and Madison, all of which had infant death rates of over 60. (Map 7) Lowest rates were found in New Kent and Charles City, which had white infant death rates of less than 20.

Omitting those counties with less than 5 per cent non-white population, non-white infant death rates ranged from 43.1 in Tazewell county to 133.7 in Stafford.

Highest non-white infant death rates were found in Westmoreland, Northumberland, Richmond, Lancaster, Accomac, Northampton, Powhatan, Stafford, Appomatox, Greene, and Wise counties, which had rates of over 100. (Map 8)

New Kent, Lunenburg and Tazewell counties had the lowest non-white infant mortality rates in the state with under 50 non-white infant deaths per 1,000 live births.

**Maternal Mortality**—There were 2.3 maternal deaths per 1,000 live births in the United States in 1944.<sup>2</sup> Virginia, with a rate of 2.6,

<sup>1</sup> Vital Statistics of the U. S., 1944, Part II, Tables 2 and J.

ranked 37th among the states. The maternal death rates show the same general racial picture as infant mortality rates, with 3 1/2 times as many deaths among non-white mothers as among white, and with the highest rate occurring in the non-white urban group. (Table 10) The rate for white mothers in the state in 1944 was only 1.6 in both urban and rural places, but was 7.6 for non-whites in urban areas and 4.9 for rural non-whites.

### Stillbirth Ratios

Stillbirth Ratios follow the same racial pattern. Rates in Virginia in 1944 were approximately the same for urban and rural white groups (23.6 and 23.3 respectively), but much higher for urban non-whites (58.4) and rural non-whites (48.2). (Table 10)

<sup>2</sup> Ibid, Table 22.

TABLE X

INFANT AND MATERNAL MORTALITY RATES AND STILLBIRTH RATIOS, BY COLOR, URBAN AND RURAL, VIRGINIA, 1944

| Race and Residence | Total Live Births | Infant Deaths Per 1,000 Live Births | Maternal Deaths Per 1,000 Live Births | Stillbirths Per 1,000 Live Births |
|--------------------|-------------------|-------------------------------------|---------------------------------------|-----------------------------------|
| All Groups.....    | 69,175            | 47.1                                | 2.6                                   | 30.5                              |
| White.....         | 52,001            | 41.7                                | 1.6                                   | 23.5                              |
| Non-White.....     | 17,174            | 63.6                                | 5.9                                   | 51.8                              |
| Urban.....         | 26,820            | 44.7                                | 2.9                                   | 31.5                              |
| White.....         | 20,762            | 37.8                                | 1.6                                   | 23.6                              |
| Non-White.....     | 6,058             | 68.2                                | 7.6                                   | 58.4                              |
| Rural.....         | 42,355            | 48.7                                | 2.5                                   | 29.9                              |
| White.....         | 31,239            | 44.3                                | 1.6                                   | 23.3                              |
| Non-White.....     | 11,116            | 61.1                                | 4.9                                   | 48.2                              |

SOURCE: Vital Statistics of the United States, 1944, Par. II, Table 2, P. 8 and Table 22, p. 448.

**TABLE XI**  
**INFANT AND MATERNAL MORTALITY RATES AND STILLBIRTH**  
**RATIOS, VIRGINIA, 1917-1945**

| Year      | Deaths Under<br>One Year<br>Per 1,000<br>Live Births | Maternal Deaths<br>Per 1,000<br>Live Births | Stillbirths<br>Per 1,000<br>Live Births |
|-----------|------------------------------------------------------|---------------------------------------------|-----------------------------------------|
| 1945..... | 48.0                                                 | 2.2                                         | 31.1                                    |
| 1944..... | 47.6                                                 | 2.8                                         | 31.2                                    |
| 1943..... | 47.9                                                 | 3.0                                         | 32.5                                    |
| 1942..... | 52.7                                                 | 3.3                                         | 34.2                                    |
| 1941..... | 64.8                                                 | 3.9                                         | 37.6                                    |
| 1940..... | 59.3                                                 | 4.5                                         | 36.8                                    |
| 1939..... | 60.9                                                 | 5.1                                         | 38.9                                    |
| 1938..... | 66.2                                                 | 5.3                                         | 40.0                                    |
| 1937..... | 69.7                                                 | 5.4                                         | 41.8                                    |
| 1936..... | 73.9                                                 | 5.8                                         | 43.6                                    |
| 1935..... | 69.6                                                 | 5.6                                         | 42.4                                    |
| 1934..... | 72.6                                                 | 6.4                                         | 43.3                                    |
| 1933..... | 68.5                                                 | 6.3                                         | 42.9                                    |
| 1932..... | 67.2                                                 | 7.1                                         | 44.4                                    |
| 1931..... | 76.3                                                 | 7.5                                         | 43.8                                    |
| 1930..... | 77.3                                                 | 7.1                                         | 45.2                                    |
| 1929..... | 78.8                                                 | 7.1                                         | 44.4                                    |
| 1928..... | 75.9                                                 | 7.5                                         | 44.2                                    |
| 1927..... | 75.5                                                 | 6.2                                         | 43.0                                    |
| 1926..... | 83.7                                                 | 8.0                                         | 44.1                                    |
| 1925..... | 80.8                                                 | 7.0                                         | 42.8                                    |
| 1924..... | 77.6                                                 | 6.5                                         | 46.2                                    |
| 1923..... | 84.0                                                 | 7.4                                         | 44.3                                    |
| 1922..... | 76.8                                                 | 7.2                                         | 44.3                                    |
| 1921..... | 78.7                                                 | 7.0                                         | .....                                   |
| 1920..... | 83.6                                                 | 8.6                                         | .....                                   |
| 1919..... | 91.0                                                 | 8.3                                         | .....                                   |
| 1918..... | 102.9                                                | 10.7                                        | .....                                   |
| 1917..... | 97.8                                                 | 8.2                                         | .....                                   |

**SOURCES:** Years 1917-1940: Vital Statistics Rates in the United States 1900\* 1940. Tables 26, 36 and 41.  
Years 1941-1945: Bureau of Vital Statistics, Virginia State Department of Health.



TABLE XII

INFANT MORTALITY RATES, BY COLOR, VIRGINIA CITIES AND COUNTIES 1941-45 INCLUSIVE, AND DIFFERENCES ABOVE OR BELOW STATE RATE

|                      | Infant Death Rate Per 1,000 Live Births |       |           | Difference Above or Below State Rate |
|----------------------|-----------------------------------------|-------|-----------|--------------------------------------|
|                      | Total                                   | White | Non-White |                                      |
| <b>STATE</b> .....   | 51.9                                    | 44.2  | 74.7      | .....                                |
| <b>Cities</b>        |                                         |       |           |                                      |
| Alexandria.....      | 35.8                                    | 29.2  | 91.7      | -16.1                                |
| Bristol.....         | 55.9                                    | 50.8  | 83.3      | 4.0                                  |
| Charlottesville..... | 56.4                                    | 48.6  | 85.7      | 4.5                                  |
| Danville.....        | 70.5                                    | 50.5  | 112.6     | 18.6                                 |
| Fredericksburg.....  | 52.6                                    | 41.9  | 107.5     | .7                                   |
| Lynchburg.....       | 39.4                                    | 32.1  | 62.1      | -12.5                                |
| Martinsville.....    | 52.6                                    | 48.5  | 66.7      | .7                                   |
| Newport News.....    | 49.8                                    | 34.1  | 76.8      | - 2.1                                |
| Norfolk.....         | 49.7                                    | 41.4  | 67.8      | - 2.2                                |
| Petersburg.....      | 68.4                                    | 40.6  | 102.6     | 16.5                                 |
| Portsmouth.....      | 60.6                                    | 40.1  | 91.6      | 8.7                                  |
| Richmond.....        | 40.0                                    | 31.3  | 58.0      | -11.9                                |
| Roanoke.....         | 47.7                                    | 39.7  | 81.7      | - 4.2                                |
| Staunton.....        | 47.1                                    | 47.1  | 47.0      | - 4.8                                |
| Suffolk.....         | 59.8                                    | 45.7  | 84.6      | 7.9                                  |
| Winchester.....      | 49.0                                    | 44.4  | 98.2      | - 2.9                                |
| <b>Counties</b>      |                                         |       |           |                                      |
| Accomac.....         | 81.8                                    | 48.8  | 120.6     | 29.9                                 |
| Albemarle.....       | 63.1                                    | 60.1  | 73.0      | 11.2                                 |
| Alleghany.....       | 45.9                                    | 41.4  | 90.2      | - 6.0                                |
| Amelia.....          | 70.4                                    | 46.8  | 86.0      | 18.5                                 |
| Amherst.....         | 55.8                                    | 42.9  | 79.1      | 3.9                                  |
| Appomattox.....      | 86.7                                    | 65.4  | 127.1     | 34.8                                 |
| Arlington.....       | 23.4                                    | 20.6  | 70.3      | -28.5                                |
| Augusta.....         | 50.7                                    | 48.3  | 82.3      | - 1.2                                |
| Bath.....            | 70.2                                    | 71.2  | 58.8      | 18.3                                 |
| Bedford.....         | 53.0                                    | 41.5  | 87.0      | 1.1                                  |
| Bland.....           | 49.0                                    | 50.4  | - *       | - 2.9                                |
| Botetourt.....       | 45.3                                    | 43.2  | 60.3      | - 6.6                                |
| Brunswick.....       | 54.1                                    | 46.8  | 57.7      | 2.2                                  |
| Buchanan.....        | 65.2                                    | 65.2  | - *       | 13.3                                 |
| Buckingham.....      | 55.5                                    | 45.2  | 64.0      | 3.6                                  |
| Campbell.....        | 46.4                                    | 36.3  | 77.2      | - 5.5                                |
| Caroline.....        | 54.7                                    | 28.9  | 68.7      | 2.8                                  |
| Carroll.....         | 51.8                                    | 51.8  | 48.8*     | - .1                                 |
| Charles City.....    | 67.7                                    | 17.9  | 72.4      | 15.8                                 |
| Charlotte.....       | 55.5                                    | 44.2  | 66.8      | 3.6                                  |

TABLE XII—Continued

|                     | Infant Death Rate Per 1,000<br>Live Births |       |           | Difference<br>Above<br>or Below<br>State Rate |
|---------------------|--------------------------------------------|-------|-----------|-----------------------------------------------|
|                     | Total                                      | White | Non-White |                                               |
| Chesterfield.....   | 35.2                                       | 25.8  | 63.8      | -16.7                                         |
| Clarke.....         | 47.5                                       | 58.4  | 54.8      | - 4.4                                         |
| Craig.....          | 54.6                                       | 54.8  | — *       | 2.7                                           |
| Culpeper.....       | 42.5                                       | 37.5  | 71.0      | - 9.4                                         |
| Cumberland.....     | 81.0                                       | 47.8  | 96.6      | 29.1                                          |
| Dickenson.....      | 55.1                                       | 55.0  | 62.1*     | 3.2                                           |
| Dinwiddie.....      | 62.6                                       | 35.4  | 75.8      | 10.7                                          |
| Elizabeth City..... | 48.3                                       | 42.5  | 69.4      | - 3.6                                         |
| Essex.....          | 53.4                                       | 51.9  | 54.8      | 1.5                                           |
| Fairfax.....        | 39.8                                       | 36.3  | 70.8      | -12.1                                         |
| Fauquier.....       | 54.1                                       | 44.9  | 72.6      | 2.2                                           |
| Floyd.....          | 43.4                                       | 40.0  | 95.9*     | - 8.5                                         |
| Fluvanna.....       | 72.8                                       | 49.8  | 95.7      | 20.9                                          |
| Franklin.....       | 48.8                                       | 44.6  | 71.0      | - 3.0                                         |
| Frederick.....      | 57.9                                       | 52.2  | 211.5*    | 6.0                                           |
| Giles.....          | 71.3                                       | 71.1  | 78.1*     | 19.4                                          |
| Gloucester.....     | 59.8                                       | 53.7  | 71.0      | 7.9                                           |
| Goochland.....      | 48.9                                       | 36.8  | 55.7      | - 3.0                                         |
| Grayson.....        | 53.2                                       | 50.1  | 133.0*    | 1.3                                           |
| Greene.....         | 77.2                                       | 71.9  | 119.4     | 25.3                                          |
| Greensville.....    | 53.5                                       | 30.4  | 63.4      | 1.6                                           |
| Halifax.....        | 55.0                                       | 43.1  | 65.4      | 3.1                                           |
| Hanover.....        | 50.1                                       | 42.5  | 60.1      | - 1.8                                         |
| Henrico.....        | 32.2                                       | 25.6  | 62.9      | -19.7                                         |
| Henry.....          | 52.2                                       | 47.8  | 60.4      | .3                                            |
| Highland.....       | 71.3                                       | 71.9  | — *       | 19.4                                          |
| Isle of Wight.....  | 58.1                                       | 51.3  | 62.5      | 6.2                                           |
| James City.....     | 51.5                                       | 35.0  | 68.7      | - .4                                          |
| King & Queen.....   | 72.7                                       | 53.8  | 87.7      | 20.8                                          |
| King George.....    | 44.3                                       | 40.4  | 52.6      | - 7.6                                         |
| King William.....   | 56.2                                       | 39.0  | 72.1      | 4.3                                           |
| Lancaster.....      | 78.1                                       | 48.2  | 111.7     | 26.2                                          |
| Lee.....            | 68.4                                       | 68.9  | 38.5*     | 16.5                                          |
| Loudoun.....        | 44.8                                       | 39.1  | 61.8      | - 7.1                                         |
| Louisa.....         | 48.1                                       | 45.2  | 50.9      | - 3.8                                         |
| Lunenburg.....      | 45.4                                       | 42.6  | 47.6      | - 6.5                                         |
| Madison.....        | 62.3                                       | 61.7  | 63.6      | 10.4                                          |
| Mathews.....        | 42.6                                       | 33.1  | 64.5      | - 9.3                                         |
| Mecklenburg.....    | 50.6                                       | 41.5  | 56.6      | - 1.3                                         |
| Middlesex.....      | 42.6                                       | 26.1  | 57.6      | - 9.3                                         |
| Montgomery.....     | 54.1                                       | 51.9  | 94.8      | 2.2                                           |
| Nansemond.....      | 86.4                                       | 58.7  | 96.5      | 34.5                                          |
| Nelson.....         | 58.3                                       | 47.2  | 81.1      | 6.4                                           |
| New Kent.....       | 34.1                                       | 15.7  | 43.3      | -17.8                                         |
| Norfolk.....        | 44.6                                       | 37.5  | 72.1      | - 7.3                                         |

TABLE XII—Continued

|                     | Infant Death Rate Per 1,000<br>Live Births |       |           | Difference<br>Above<br>or Below<br>State Rate |
|---------------------|--------------------------------------------|-------|-----------|-----------------------------------------------|
|                     | Total                                      | White | Non-White |                                               |
| Northampton.....    | 76.2                                       | 31.2  | 102.3     | 24.3                                          |
| Northumberland..... | 79.6                                       | 44.5  | 109.6     | 27.7                                          |
| Nottoway.....       | 63.3                                       | 31.2  | 74.4      | 11.4                                          |
| Orange.....         | 71.0                                       | 57.6  | 96.9      | 19.1                                          |
| Page.....           | 48.5                                       | 46.0  | 116.7*    | - 3.4                                         |
| Patrick.....        | 49.1                                       | 46.4  | 75.7      | - 2.8                                         |
| Pittsylvania.....   | 49.6                                       | 47.0  | 54.1      | - 2.3                                         |
| Powhatan.....       | 72.9                                       | 37.0  | 100.7     | 21.0                                          |
| Prince Edward.....  | 59.5                                       | 45.8  | 70.2      | 7.6                                           |
| Prince George.....  | 56.3                                       | 40.2  | 89.4      | 4.4                                           |
| Princess Anne.....  | 57.4                                       | 44.5  | 81.5      | 5.5                                           |
| Prince William..... | 54.7                                       | 55.7  | 50.2      | 2.8                                           |
| Pulaski.....        | 45.9                                       | 44.5  | 64.9      | - 6.0                                         |
| Rappahannock.....   | 52.1                                       | 43.0  | 93.0      | .2                                            |
| Richmond.....       | 66.1                                       | 28.8  | 106.6     | 14.2                                          |
| Roanoke.....        | 44.4                                       | 41.0  | 88.1      | - 7.5                                         |
| Rockbridge.....     | 47.5                                       | 46.3  | 57.2      | - 4.4                                         |
| Rockingham.....     | 49.0                                       | 47.2  | 105.3*    | - 2.9                                         |
| Russell.....        | 48.1                                       | 48.1  | 47.1*     | - 3.8                                         |
| Scott.....          | 60.8                                       | 61.2  | —*        | 8.9                                           |
| Shenandoah.....     | 47.6                                       | 46.6  | 71.4*     | - 4.3                                         |
| Smyth.....          | 61.9                                       | 62.7  | 16.9*     | 10.0                                          |
| Southampton.....    | 76.3                                       | 42.7  | 90.2      | 24.4                                          |
| Spottsylvania.....  | 58.1                                       | 51.4  | 72.9      | 6.2                                           |
| Stafford.....       | 61.1                                       | 44.0  | 133.7     | 9.2                                           |
| Surry.....          | 73.3                                       | 20.5  | 95.0      | 21.4                                          |
| Sussex.....         | 66.6                                       | 20.7  | 80.6      | 14.7                                          |
| Tazewell.....       | 57.8                                       | 58.6  | 43.1      | 5.9                                           |
| Warren.....         | 58.2                                       | 52.7  | 98.8      | 6.3                                           |
| Warwick.....        | 45.9                                       | 39.7  | 63.5      | - 6.0                                         |
| Washington.....     | 57.1                                       | 55.7  | 104.2*    | 5.2                                           |
| Westmoreland.....   | 79.3                                       | 33.3  | 110.0     | 27.4                                          |
| Wise.....           | 67.8                                       | 65.8  | 113.3     | 15.9                                          |
| Wythe.....          | 35.8                                       | 34.7  | 56.7      | -16.1                                         |
| York.....           | 57.9                                       | 40.5  | 90.9      | 6.0                                           |

\* Counties with less than 5 per cent non-white population.



MAP 6

## DIFFERENCE ABOVE OR BELOW STATE INFANT MORTALITY RATE

VIRGINIA CITIES AND COUNTIES, 1941 - 45 INCLUSIVE

STATE RATE 51.9

DIFFERENCE



ABOVE STATE RATE

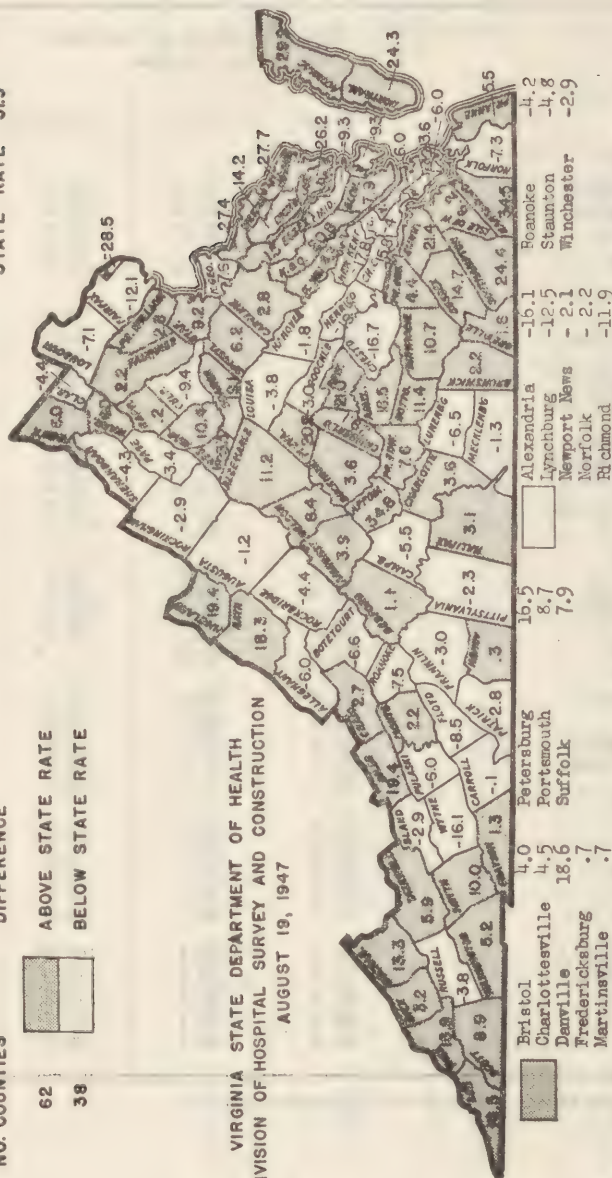
BELOW STATE RATE

NO. COUNTIES

62

38

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



Map 6 - Infant mortality rates fluctuate from year to year. To reduce chance variation, rates were averaged over a five year period. High rates are found in southwest Virginia, middle Virginia, the Tidewater, the Southeast and the Eastern Shore. Lowest rates prevail in urban areas, where more births occur in hospitals and where there is greater access to medical service.

MAP 7

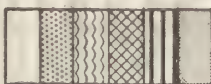
## WHITE INFANT MORTALITY RATES

VIRGINIA CITIES AND COUNTIES, 1941 - 45 INCLUSIVE

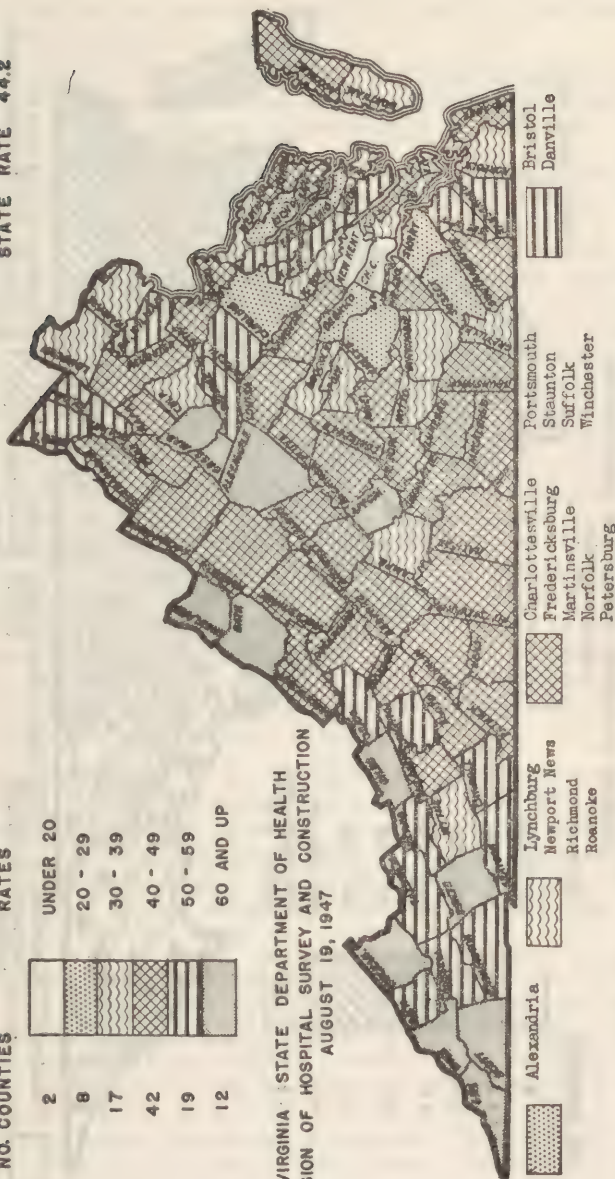
STATE RATE 44.2

NO. COUNTIES

RATES



VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

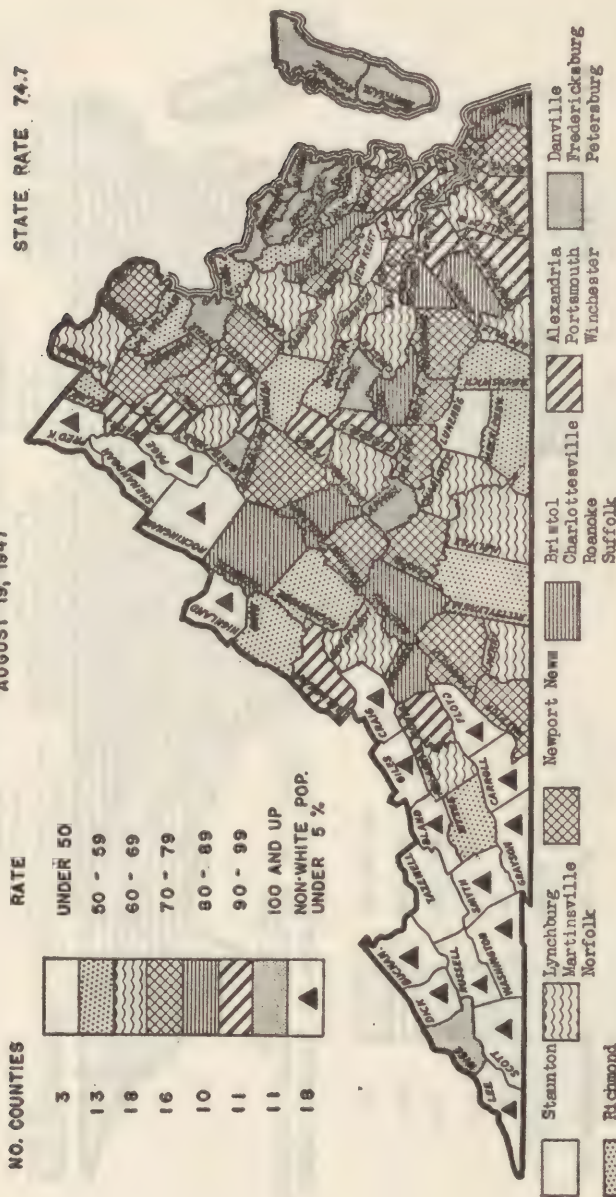


Map 7 - When infant mortality rates are studied from a racial standpoint, southwest Virginia is seen to have the greatest proportionate number of white infant deaths. Other areas with disproportionately high white infant death rates are Highland, Bath, Albemarle, Greene, Madison and Appomattox counties.

# MAP 8 NON-WHITE INFANT MORTALITY RATES VIRGINIA CITIES AND COUNTIES, 1941-45 INCLUSIVE

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

STATE RATE 74.7



Map 8 - Counties with less than 5% Negro populations have been eliminated, as the number of non-white infant deaths in such areas is too small to give an accurate rate. Non-white infant death rates are highest in the counties of the Northern Neck and the Eastern Shore, and in Greene, Stafford, Powhatan, Wise and Appomattox counties.



## BIRTHS IN HOSPITALS

Births in hospitals are generally assumed to have a high correlation with infant mortality rates.

In 1944, 75.6 per cent of all babies in the United States were born in hospitals.<sup>1</sup> Virginia ranked 40th among the states with only 55.7 per cent of total births occurring in hospitals.

In the past nine years, total births in hospitals in the state have increased from 21.4 per cent in 1937 to 60.6 per cent in 1945. (Tables 13 and 17.) The great majority of births in hospitals are in urban areas, where 80.7 per cent of all births occurred in hospitals in 1944. (Table 14.) In rural areas only 39.9 per cent of births occurred in hospitals. The number of births in hospitals increased considerably for both whites and non-whites in the period 1939-1940 to 1944-1945. (Table 16.) This increase was probably due to the general prosperity of the period, the growing use of hospitalization insurance and the government Emergency Maternal and Infant Care program, which provides maternity care for the wives of men in the lower pay grades of the armed forces. Though there has been an increase in the number of infants born in hospitals to both whites and non-whites, the usual racial picture prevails. Many more white babies receive the benefit of birth in hospitals than non-whites; in 1944, 66.3 per cent as compared to 23.7 per cent. (Table 15.) Both whites and non-whites had a much higher percentage of births in hospitals in urban than in rural areas. The lowest percentage was found in the rural non-white group, with only 12.8 per cent of births occurring in hospitals in 1944. Nonetheless, infant and maternal mortality rates were lower among this group than among urban non-whites, who had considerably more births in hospitals. (Tables 10 and 15.)

Counties with the highest percentages of white births in hospitals are Chesterfield, Elizabeth City, James City, Norfolk, Warwick and York (Table 16, Map 9.), all of which, except York, had white infant mortality rates below the state average in the period 1941-1945. (Table 12.) The lowest percentages of white births in hospitals are found in Buchanan, Carroll, Highland and Lee counties, areas which have high infant mortality rates.

The percentage of non-white births in hospitals was highest in Albemarle, Arlington, Elizabeth City, Frederick and Montgomery counties, and lowest in Amelia, Brunswick, Charles City, Isle of Wight, Northumberland and Patrick counties. (Table 16 and Map 10.) A study of the 18 counties having a non-white population of 50 per cent or more, (Amelia, Brunswick, Caroline, Charles City, Cumberland, Dinwiddie, Essex, Goochland, Greenville, Isle of Wight, King and Queen, Mecklenburg, Nansemond, New Kent, Northampton, Southampton, Surry and Sussex) reveals a very low percentage of non-white births in hospitals. (Tables 5 and 16.) The highest percentage found in these counties was in Northampton, where only 10.1

<sup>1</sup> Vital Statistics of the U. S., 1944, Part II, Table R.



per cent of non-white births occurred in hospitals. No significant correlation could be found between non-white births in hospitals and non-white infant mortality rates. It is assumed that other factors in the lives of Virginia non-whites have a greater influence on infant mortality rates.

Although only 14.9 per cent of all babies born in the state in 1945 were delivered by midwives, 47.3 per cent of these were born to non-white mothers and only 3.9 per cent to white. (Table 17.)

**TABLE XIII**  
**BIRTHS AND PERCENTAGE OF BIRTHS IN HOSPITALS, URBAN**  
**AND RURAL, VIRGINIA, 1937-1944**

| Year      | Number of Births |                    |                    | Pct. Births in Hospitals |                    |                    |
|-----------|------------------|--------------------|--------------------|--------------------------|--------------------|--------------------|
|           | Total            | Urban <sup>1</sup> | Rural <sup>1</sup> | Total                    | Urban <sup>1</sup> | Rural <sup>1</sup> |
| 1944..... | 69,175           | 26,820             | 42,355             | 55.7                     | 80.7               | 39.9               |
| 1943..... | 72,157           | 27,528             | 44,629             | 50.7                     | 77.5               | 34.3               |
| 1942..... | 67,950           | 25,386             | 42,564             | 44.8                     | 73.1               | 27.9               |
| 1941..... | 61,079           | 16,338             | 44,741             | 37.3                     | 72.4               | 24.5               |
| 1940..... | 57,014           | 14,287             | 42,727             | 31.3                     | 67.0               | 19.3               |
| 1939..... | 54,258           | 11,611             | 42,647             | 26.8                     | 60.0               | 17.7               |
| 1938..... | 53,495           | 13,270             | 40,225             | 23.6                     | 55.8               | 15.1               |
| 1937..... | 52,805           | 10,874             | 41,931             | 21.4                     | 50.9               | 13.7               |

**SOURCE:** Reports of the Virginia State Department of Health, 1941-45, inclusive.

<sup>1</sup> Before 1942, **rural** includes cities up to 10,000 in population, and **urban** includes only places over 10,000. For 1942, 1943, and 1944, **rural** includes towns up to 2,500 and **urban** includes all places above 2,500.

**SOURCES:** *Vital Statistics of the United States*. Part II for each year:

|                       |                        |
|-----------------------|------------------------|
| 1937: Tables X and 7. | 1941: Tables T and 2.  |
| 1938: Tables Z and 9. | 1942: Tables R and 11. |
| 1939: Tables Z and 2. | 1943: Tables R and 11. |
| 1940: Tables T and 2. | 1944: Tables R and 11. |

**TABLE XIV**  
**PER CENT BIRTHS IN HOSPITAL BY COLOR, URBAN AND RURAL,**  
**VIRGINIA, 1942, 1943 AND 1944**

| Place and Color | Percentage of Births in Hospitals |      |      |
|-----------------|-----------------------------------|------|------|
|                 | 1944                              | 1943 | 1942 |
| All areas.....  | 55.7                              | 50.7 | 44.8 |
| White.....      | 66.3                              | 60.6 | 54.4 |
| Non-White.....  | 23.7                              | 19.8 | 16.3 |
| Urban.....      | 80.7                              | 77.5 | 73.1 |
| White.....      | 91.5                              | 89.0 | 84.8 |
| Non-White.....  | 43.7                              | 38.9 | 34.6 |
| Rural.....      | 39.9                              | 34.3 | 27.9 |
| White.....      | 49.6                              | 42.7 | 35.5 |
| Non-White.....  | 12.8                              | 9.2  | 6.6  |

SOURCE: Vital Statistics of the United States. Part II for each year:

1942: Table II.

1943: Table II.

1944: Table II.

**TABLE XV**  
**BIRTHS AND PER CENT BIRTHS IN HOSPITALS, BY COLOR, URBAN**  
**AND RURAL, VIRGINIA, 1944**

| Residence and Color        | Total Births | Births in Hospitals | Percentage in Hospitals |
|----------------------------|--------------|---------------------|-------------------------|
| State.....                 | 69,175       | 38,553              | 55.7                    |
| White.....                 | 52,001       | 34,475              | 66.3                    |
| Non-White.....             | 17,174       | 4,078               | 23.7                    |
| Urban.....                 | 26,820       | 21,643              | 80.7                    |
| White.....                 | 20,762       | 18,993              | 91.5                    |
| Non-White.....             | 6,058        | 2,650               | 43.7                    |
| Places 10,000 or more..... | 21,841       | 18,125              | 83.0                    |
| White.....                 | 16,460       | 15,721              | 95.5                    |
| Non-White.....             | 5,381        | 2,404               | 44.7                    |
| Places 2,500-10,000.....   | 4,979        | 3,518               | 70.7                    |
| White.....                 | 4,302        | 3,272               | 76.1                    |
| Non-White.....             | 677          | 246                 | 36.3                    |
| Rural.....                 | 42,355       | 16,910              | 39.9                    |
| White.....                 | 31,239       | 15,482              | 49.6                    |
| Non-White.....             | 11,116       | 1,428               | 12.8                    |

SOURCE: Vital Statistics of the U. S., 1944, Part II, Table 11, p. 156.

TABLE XVI

BIRTHS AND PER CENT BIRTHS IN HOSPITALS, BY COLOR, VIRGINIA CITIES AND COUNTIES, 1939-1940  
AND 1944-1945 SHOWING PERCENTAGE CHANGE IN BIRTHS IN HOSPITALS

|                                              | White           |                                     |                 |                                     | Pct.<br>Change<br>in Births<br>in Hosp.<br>1939-40<br>to<br>1944-45 | Non-White       |                                     |                 |                                     | Pct.<br>Change<br>in Births<br>in Hosp.<br>1939-40<br>to<br>1944-45 |
|----------------------------------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|---------------------------------------------------------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|---------------------------------------------------------------------|
|                                              | 1939-40         |                                     | 1944-45         |                                     |                                                                     | 1939-40         |                                     | 1944-45         |                                     |                                                                     |
|                                              | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                                                     | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                                                     |
|                                              |                 |                                     |                 |                                     |                                                                     |                 |                                     |                 |                                     |                                                                     |
| STATE.....                                   | 39,971          | 36.1                                | 50,379          | 69.0                                | 32.9                                                                | 15,388          | 11.0                                | 16,983          | 25.7                                | 14.7                                                                |
| Cities of 10,000<br>population up—Total..... | 8,111           | 78.3                                | 12,898          | 95.3                                | 17.0                                                                | 3,997           | 27.8                                | 5,147           | 47.5                                | 19.7                                                                |
| Alexandria.....                              | 566             | 93.3                                | 1,438           | 98.5                                | 5.2                                                                 | 93              | 74.2                                | 155             | 74.8                                | .6                                                                  |
| Bristol.....                                 | 260             | 85.4                                | 366             | 97.3                                | 11.9                                                                | 75              | 80.0                                | 22              | 36.4                                | 4.5                                                                 |
| Charlottesville.....                         | 394             | 87.1                                | 479             | 98.3                                | 11.2                                                                | 95              | 12.6                                | 212             | 27.8                                | 15.2                                                                |
| Danville.....                                | 166             | 70.5                                | 186             | 96.8                                | 26.3                                                                | 33              | 15.2                                | 36              | 30.6                                | 15.4                                                                |
| Fredericksburg.....                          |                 |                                     |                 |                                     |                                                                     |                 |                                     |                 |                                     |                                                                     |
| Lynchburg.....                               | 576             | 84.9                                | 677             | 98.1                                | 13.2                                                                | 213             | 64.8                                | 213             | 77.9                                | 13.1                                                                |
| Martinsville.....                            | 206             | 26.7                                | 186             | 79.0                                | 52.3                                                                | 54              | 14.8                                | 55              | 43.6                                | 28.8                                                                |
| Newport News.....                            | 377             | 84.9                                | 939             | 98.4                                | 13.5                                                                | 303             | 14.5                                | 548             | 66.4                                | 51.9                                                                |
| Norfolk.....                                 | 1,595           | 80.0                                | 2,630           | 94.4                                | 14.4                                                                | 869             | 13.0                                | 1,277           | 19.6                                | 6.6                                                                 |
| Petersburg.....                              | 268             | 36.9                                | 414             | 87.4                                | 50.5                                                                | 281             | 3.2                                 | 320             | 8.4                                 | 5.2                                                                 |
| Portsmouth.....                              | 517             | 87.8                                | 852             | 98.2                                | 10.4                                                                | 369             | 6.0                                 | 652             | 8.9                                 | 2.9                                                                 |



|                                                           |        |      |        |      |      |        |       |        |       |       |
|-----------------------------------------------------------|--------|------|--------|------|------|--------|-------|--------|-------|-------|
| Richmond.....                                             | 1,794  | 84.5 | 2,778  | 96.5 | 12.0 | 1,159  | 47.9  | 1,274  | 65.1  | 17.2  |
| Roanoke.....                                              | 933    | 70.7 | 1,108  | 94.0 | 23.3 | 223    | 30.9  | 253    | 56.5  | 25.6  |
| Staunton.....                                             | 153    | 51.6 | 183    | 89.6 | 38.0 | 33     | 12.1  | 32     | 21.9  | 9.8   |
| Suffolk.....                                              | 111    | 53.2 | 174    | 89.7 | 36.5 | 80     | 1.3   | 88     | 30.7  | 29.4  |
| Winchester.....                                           | 183    | 72.1 | 236    | 95.8 | 23.7 | 19     | 21.1  | 25     | 76.0  | 54.9  |
| Counties including smaller<br>cities and towns—Total..... | 31,960 | 25.3 | 37,481 | 59.9 | 34.6 | 11,391 | 5.1   | 11,736 | 16.3  | 11.2  |
| Accomac.....                                              | 261    | 14.6 | 316    | 49.1 | 34.5 | 239    | 3.1   | 260    | 10.0  | 6.9   |
| Albemarle.....                                            | 411    | 60.8 | 327    | 80.1 | 19.3 | 114    | 48.2  | 85     | 62.4  | 14.2  |
| Alleghany.....                                            | 477    | 19.9 | 494    | 59.1 | 39.2 | 52     | 7.7   | 49     | 18.4  | 10.7  |
| Amelia.....                                               | 95     | 7.4  | 61     | 34.4 | 27.3 | 121    | 2.5   | 116    | 3.4   | 9.9   |
| Amherst.....                                              | 232    | 24.1 | 238    | 61.8 | 37.7 | 171    | 8.2   | 125    | 27.2  | 19.0  |
| Appomattox.....                                           | 112    | 15.2 | 112    | 55.4 | 40.2 | 59     | 5.1   | 57     | 12.3  | 7.2   |
| Arlington.....                                            | 1,108  | 93.4 | 3,199  | 99.0 | 5.6  | 98     | 70.4  | 122    | 82.0  | 11.6  |
| Augusta.....                                              | 843    | 25.9 | 829    | 61.0 | 35.1 | 72     | 11.1  | 58     | 27.6  | 16.5  |
| Bath.....                                                 | 145    | 21.4 | 119    | 43.7 | 22.3 | 9      | 11.1  | 9      | 44.4  | 33.3  |
| Bedford.....                                              | 432    | 19.2 | 392    | 59.4 | 40.2 | 154    | 3.2   | 126    | 19.8  | 16.6  |
| Bland.....                                                | 157    | 5.7  | 141    | 31.2 | 25.5 | 3      | ..... | 4      | 25.0  | 25.0  |
| Botetourt.....                                            | 314    | 13.7 | 264    | 34.1 | 20.4 | 45     | 6.7   | 35     | 25.7  | 19.0  |
| Brunswick.....                                            | 171    | 11.1 | 147    | 44.9 | 33.8 | 330    | 1.2   | 309    | 3.6   | 2.4   |
| Buchanan.....                                             | 1,200  | 5.4  | 1,115  | 15.3 | 9.9  | .....  | ..... | .....  | ..... | ..... |
| Buckingham.....                                           | 153    | 19.6 | 118    | 37.3 | 17.7 | 160    | 3.8   | 153    | 7.2   | 3.4   |
| Campbell.....                                             | 425    | 29.2 | 378    | 64.6 | 35.4 | 196    | 5.6   | 177    | 19.2  | 13.6  |
| Caroline.....                                             | 112    | 16.1 | 106    | 42.5 | 26.4 | 203    | 1.5   | 203    | 4.4   | 2.9   |
| Carroll.....                                              | 551    | 1.1  | 494    | 12.6 | 11.5 | 3      | 33.3  | 7      | 14.3  | —19.0 |
| Charles City.....                                         | 6      | 50.0 | 11     | 72.7 | 22.7 | 100    | 2.0   | 117    | 3.4   | 1.4   |
| Charlotte.....                                            | 173    | 20.2 | 144    | 50.7 | 30.5 | 183    | 3.3   | 143    | 10.5  | 7.2   |
| Chesterfield.....                                         | 393    | 54.7 | 511    | 91.8 | 37.1 | 159    | 7.5   | 153    | 17.6  | 10.1  |
| Clarke.....                                               | 120    | 33.3 | 99     | 54.5 | 21.2 | 30     | 23.3  | 30     | 53.3  | 30.0  |
| Craig.....                                                | 78     | 9.0  | 55     | 27.3 | 18.3 | 1      | ..... | .....  | ..... | ..... |
| Culpeper.....                                             | 156    | 21.2 | 162    | 40.7 | 19.5 | 109    | 3.7   | 95     | 8.4   | 4.7   |
| Cumberland.....                                           | 55     | 27.3 | 48     | 56.3 | 29.0 | 103    | 1.9   | 117    | 6.0   | 4.1   |

TABLE XVI—Continued

|                     | White           |                                     |                 |                                     | Pct.<br>Change<br>in Hosp.<br>1939-40<br>to<br>1944-45 | Non-White       |                                     |                 |                                     | Pct.<br>Change<br>in Births<br>in Hosp.<br>1939-40<br>to<br>1944-45 |       |
|---------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|--------------------------------------------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|---------------------------------------------------------------------|-------|
|                     | 1939-40         |                                     | 1944-45         |                                     |                                                        | 1939-40         |                                     | 1944-45         |                                     |                                                                     |       |
|                     | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                                        | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                                                     |       |
|                     |                 |                                     |                 |                                     |                                                        |                 |                                     |                 |                                     |                                                                     |       |
| Dickenson.....      | 732             | 11.3                                | 669             | 25.9                                | 14.6                                                   | 10              | .....                               | 11              | .....                               | .....                                                               | 4.6   |
| Dinwiddie.....      | 96              | 18.8                                | 121             | 56.2                                | 37.4                                                   | 227             | 2.2                                 | 207             | 6.8                                 | .....                                                               | 49.8  |
| Elizabeth City..... | 449             | 86.9                                | 911             | 97.0                                | 10.1                                                   | 157             | 15.9                                | 239             | 65.7                                | .....                                                               | 4.7   |
| Essex.....          | 66              | 31.8                                | 66              | 54.5                                | 22.7                                                   | 79              | 3.8                                 | 71              | 8.5                                 | .....                                                               | ..... |
| Fairfax.....        | 520             | 77.9                                | 1,207           | 87.6                                | 9.7                                                    | 97              | 50.5                                | 179             | 50.8                                | .....                                                               | .3    |
| Fauquier.....       | 274             | 30.7                                | 269             | 66.2                                | 35.5                                                   | 145             | 4.8                                 | 139             | 27.3                                | .....                                                               | 22.5  |
| Floyd.....          | 270             | 4.8                                 | 206             | 28.6                                | 23.8                                                   | 16              | 6.3                                 | 13              | 15.4                                | .....                                                               | 9.1   |
| Fluvanna.....       | 71              | 22.5                                | 61              | 59.0                                | 36.5                                                   | 58              | 5.2                                 | 59              | 11.9                                | .....                                                               | 6.7   |
| Franklin.....       | 501             | 6.8                                 | 429             | 32.2                                | 25.4                                                   | 81              | 2.5                                 | 82              | 11.0                                | .....                                                               | 8.5   |
| Frederick.....      | 270             | 24.8                                | 261             | 76.2                                | 51.4                                                   | 6               | 16.7                                | 9               | 66.7                                | .....                                                               | 50.0  |
| Giles.....          | 346             | 8.7                                 | 44              | 32.4                                | 23.7                                                   | 12              | .....                               | 14              | 14.3                                | .....                                                               | 14.3  |
| Gloucester.....     | 106             | 24.5                                | 117             | 74.4                                | 49.9                                                   | 54              | 3.7                                 | 65              | 10.8                                | .....                                                               | 7.1   |
| Goochland.....      | 64              | 29.7                                | 53              | 47.2                                | 17.5                                                   | 100             | 2.0                                 | 107             | 8.4                                 | .....                                                               | 6.4   |
| Grayson.....        | 463             | 6.3                                 | 424             | 24.8                                | 18.5                                                   | 21              | .....                               | 15              | .....                               | .....                                                               | ..... |
| Greene.....         | 113             | 46.0                                | 102             | 55.9                                | 9.9                                                    | 16              | 18.8                                | 10              | 20.0                                | .....                                                               | 1.2   |
| Greensville.....    | 115             | 20.0                                | 118             | 72.9                                | 52.9                                                   | 250             | .4                                  | 300             | 2.7                                 | .....                                                               | 2.3   |
| Halifax.....        | 472             | 19.9                                | 465             | 50.1                                | 30.2                                                   | 543             | 1.3                                 | 524             | 5.7                                 | .....                                                               | 4.4   |

|                     |       |      |       |      |      |       |      |     |      |      |
|---------------------|-------|------|-------|------|------|-------|------|-----|------|------|
| Hanover.....        | 203   | 21.7 | 239   | 53.1 | 31.4 | 159   | 1.3  | 173 | 6.4  | 5.1  |
| Henrico.....        | 487   | 77.4 | 535   | 89.0 | 11.6 | 128   | 14.1 | 113 | 30.1 | 16.0 |
| Henry.....          | **546 | 7.3  | 474   | 39.7 | 32.4 | **282 | 4.6  | 269 | 17.5 | 13.0 |
| Highland.....       | 111   | 4.5  | 71    | 19.7 | 15.2 | ..    | ..   | ..  | ..   | ..   |
| Isle of Wight.....  | 108   | 19.4 | 130   | 59.2 | 39.8 | 179   | ..   | 203 | 3.0  | 3.0  |
| James City.....     | 70    | 61.4 | 102   | 94.1 | 32.7 | 73    | 2.7  | 98  | 31.6 | 28.9 |
| King & Queen.....   | 58    | 17.2 | 56    | 51.8 | 34.6 | 88    | 2.3  | 75  | 4.0  | 1.7  |
| King George.....    | 65    | 29.2 | 111   | 80.2 | 51.0 | 47    | 12.8 | 53  | 20.8 | 8.0  |
| King William.....   | 66    | 25.8 | 81    | 70.4 | 44.6 | 94    | 1.1  | 117 | 4.3  | 3.2  |
| Lancaster.....      | 92    | 16.3 | 73    | 41.1 | 24.8 | 78    | ..   | 67  | 6.0  | 6.0  |
| Lee.....            | 1,067 | 2.9  | 867   | 15.2 | 12.3 | 12    | ..   | 10  | 10.0 | 10.0 |
| Loudoun.....        | 315   | 28.9 | 309   | 61.2 | 32.3 | 96    | 10.4 | 101 | 26.7 | 16.3 |
| Louisa.....         | 139   | 17.3 | 128   | 70.3 | 53.0 | 139   | 3.6  | 142 | 43.7 | 40.1 |
| Lunenburg.....      | 130   | 14.6 | 148   | 45.9 | 31.3 | 175   | 3.4  | 177 | 7.9  | 4.5  |
| Madison.....        | 118   | 39.8 | 111   | 55.9 | 16.1 | 48    | 6.3  | 50  | 28.0 | 21.7 |
| Mathews.....        | 51    | 33.3 | 76    | 73.7 | 40.4 | 25    | ..   | 29  | 3.4  | 3.4  |
| Mecklenburg.....    | 301   | 14.3 | 318   | 46.5 | 32.2 | 510   | 1.2  | 481 | 8.7  | 7.5  |
| Middlesex.....      | 41    | 24.4 | 59    | 66.1 | 41.7 | 62    | 1.6  | 64  | 12.5 | 10.9 |
| Montgomery.....     | 539   | 16.7 | 792   | 82.6 | 65.9 | 39    | ..   | 47  | 68.1 | 68.1 |
| Nansemond.....      | 123   | 24.4 | 161   | 65.8 | 53.5 | 383   | 8    | 422 | 9.2  | 8.4  |
| Nelson.....         | 252   | 33.3 | 218   | 57.8 | 24.5 | 121   | 9.1  | 95  | 31.6 | 22.5 |
| New Kent.....       | 18    | 83.9 | 30    | 76.7 | 37.8 | 46    | 4.3  | 40  | 10.0 | 5.7  |
| Norfolk.....        | 495   | 58.2 | 2,620 | 92.1 | 33.9 | 347   | 2.9  | 582 | 19.6 | 16.7 |
| Northampton.....    | 102   | 37.3 | 139   | 72.7 | 35.4 | 239   | 2.1  | 217 | 10.1 | 8.0  |
| Northumberland..... | 77    | 15.6 | 63    | 30.2 | 14.6 | 94    | 1.1  | 91  | 3.3  | 2.2  |
| Nottoway.....       | 141   | 28.4 | 171   | 66.1 | 37.7 | 176   | 3.4  | 174 | 14.4 | 11.0 |
| Orange.....         | 160   | 50.6 | 152   | 79.6 | 29.0 | 102   | 18.5 | 82  | 28.0 | 9.4  |
| Page.....           | 305   | 18.4 | 304   | 36.8 | 18.4 | 13    | 15.4 | 13  | 46.2 | 30.8 |
| Patrick.....        | 396   | 6.3  | 330   | 22.4 | 16.1 | 41    | ..   | 38  | 2.6  | 2.6  |
| Pittsylvania.....   | 944   | 38.7 | 964   | 68.7 | 30.9 | 570   | 2.1  | 562 | 10.0 | 7.9  |



TABLE XVI—Continued

|                     | White           |                                     |                 |                                     | Pct.<br>Change<br>in Hosp.<br>to<br>1944-45 | Non-White       |                                     |                 |                                     | Pct.<br>Change<br>in Hosp.<br>to<br>1944-45 |
|---------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|---------------------------------------------|-----------------|-------------------------------------|-----------------|-------------------------------------|---------------------------------------------|
|                     | 1939-40         |                                     | 1944-45         |                                     |                                             | 1939-40         |                                     | 1944-45         |                                     |                                             |
|                     | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                             | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals | Total<br>Births | Pct.<br>Births<br>in Hos-<br>pitals |                                             |
|                     |                 |                                     |                 |                                     |                                             |                 |                                     |                 |                                     |                                             |
| Powhatan.....       | 50              | 26.0                                | 38              | 44.7                                | 18.7                                        | 53              | 1.9                                 | 55              | 9.1                                 | 7.2                                         |
| Prince Edward.....  | 130             | 42.3                                | 121             | 85.1                                | 42.8                                        | 192             | 4.7                                 | 150             | 13.3                                | 8.6                                         |
| Prince George.....  | 162             | 32.7                                | 332             | 79.8                                | 47.1                                        | 133             | .8                                  | 165             | 3.6                                 | 2.8                                         |
| Prince William..... | 280             | 46.1                                | 232             | 55.2                                | 9.1                                         | 54              | 5.7                                 | 53              | 17.0                                | 11.3                                        |
| Princess Anne.....  | 198             | 44.9                                | 454             | 84.8                                | 39.9                                        | 188             | 2.7                                 | 239             | 12.6                                | 9.9                                         |
| Pulaski.....        | 484             | 24.2                                | 588             | 72.4                                | 48.2                                        | 50              | 2.0                                 | 41              | 34.1                                | 32.1                                        |
| Rappahannock.....   | 129             | 17.1                                | 112             | 42.0                                | 24.9                                        | 28              | 7.1                                 | 25              | 28.0                                | 20.9                                        |
| Richmond.....       | 64              | 10.9                                | 69              | 20.3                                | 9.4                                         | 60              | .....                               | 59              | 5.1                                 | 5.1                                         |
| Roanoke.....        | 716             | 46.4                                | 800             | 84.8                                | 38.4                                        | 54              | 11.1                                | 63              | 39.7                                | 28.6                                        |
| Rockbridge.....     | 509             | 18.7                                | 450             | 49.3                                | 30.6                                        | 40              | 12.5                                | 55              | 20.0                                | 7.5                                         |
| Rockingham.....     | 699             | 32.5                                | 815             | 69.8                                | 37.3                                        | 28              | 35.7                                | 35              | 57.1                                | 21.4                                        |
| Russell.....        | 782             | 5.0                                 | 689             | 27.3                                | 22.3                                        | 19              | 5.3                                 | 15              | 20.1                                | 14.8                                        |
| Scott.....          | 611             | 3.3                                 | 604             | 28.6                                | 25.3                                        | 1               | .....                               | 3               | 33.3                                | 33.3                                        |
| Shenandoah.....     | 360             | 18.9                                | 399             | 74.7                                | 55.8                                        | 10              | 20.0                                | 9               | 22.2                                | 2.2                                         |
| Smyth.....          | 680             | 8.8                                 | 685             | 26.1                                | 17.3                                        | 11              | 9.1                                 | 9               | 11.1                                | 2.0                                         |
| Southampton.....    | 193             | 37.3                                | 185             | 68.1                                | 30.8                                        | 489             | 2.0                                 | 493             | 6.5                                 | 4.5                                         |
| Spotsylvania.....   | **148           | 34.5                                | 161             | 70.8                                | 36.3                                        | **65            | 7.7                                 | 63              | 22.2                                | 14.5                                        |
| Stafford.....       | 131             | 35.1                                | 152             | 74.3                                | 39.2                                        | 41              | 4.9                                 | 38              | 23.7                                | 18.8                                        |

|                   |       |      |       |       |      |     |       |     |      |      |
|-------------------|-------|------|-------|-------|------|-----|-------|-----|------|------|
| Surry.....        | 32    | 21.9 | 31    | 54.8  | 32.9 | 100 | 1.0   | 95  | 5.3  | 4.3  |
| Sussex.....       | 59    | 33.9 | 75    | 74.7  | 40.8 | 248 | 1.2   | 254 | 4.3  | 3.1  |
| Tazewell.....     | 1,190 | 13.2 | 1,193 | 29.7  | 16.5 | 63  | 3.2   | 63  | 11.1 | 7.9  |
| Warren.....       | 224   | 32.6 | 249   | 81.9  | 49.3 | 27  | 7.4   | 32  | 21.9 | 14.5 |
| Warwick.....      | 124   | 86.3 | 466   | 96.8  | 10.5 | 56  | 10.7  | 262 | 48.8 | 38.1 |
| Washington.....   | 1,073 | 11.4 | 824   | -29.1 | 17.7 | 41  | ..... | 18  | 5.6  | 5.6  |
| Westmoreland..... | 79    | 17.7 | 84    | 36.9  | 19.2 | 123 | 2.4   | 109 | 3.5  | 3.1  |
| Wise.....         | 1,359 | 6.3  | 1,358 | 26.4  | 20.1 | 57  | ..... | 54  | 9.3  | 9.3  |
| Wythe.....        | 517   | 5.8  | 522   | 31.4  | 25.6 | 32  | 3.1   | 24  | 12.5 | 9.4  |
| York.....         | 103   | 55.0 | 179   | 93.9  | 38.9 | 98  | 3.1   | 81  | 24.7 | 21.6 |

\* No Negro births reported.

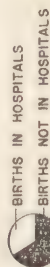
\*\* For year 1940 only.

SOURCE: Virginia State Department of Health Report, 1940-1941. Unpublished records, Bureau of Vital Statistics State Department of Health, 1944-1945.

MAP 9

## PERCENT TOTAL WHITE BIRTHS IN HOSPITALS

VIRGINIA CITIES AND COUNTIES, 1944-1945



PERCENT TOTAL WHITE BIRTHS IN HOSPITALS - 1944-45

|                      |                   |                 |
|----------------------|-------------------|-----------------|
| ALEXANDRIA 88.5      | LYNCHBURG 98.1    | PORTSMOUTH 98.2 |
| ARLINGTON 72.3       | MARTINSVILLE 78.0 | RICHMOND 95.5   |
| CHARLOTTESVILLE 84.3 | NEWPORT NEWS 84.4 | ROANOKE 85.0    |
| DANVILLE 86.3        | NORFOLK 84.4      | STANTON 85.6    |
| FREDERICKSBURG 86.8  | PETERSBURG 87.4   | SUFFOLK 87.7    |
|                      | WINCHESTER 85.6   |                 |

THE PERCENTAGE OF BIRTHS IN HOSPITALS IS CONSIDERABLY HIGHER IN URBAN THAN IN RURAL AREAS. THE COUNTIES OF SOUTHWEST VIRGINIA AND THE NORTH-EM HICK HAVE RELATIVELY FEW WHITE BIRTHS IN HOSPITALS.

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 14, 1947

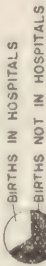




## MAP 10

## PERCENT TOTAL NON-WHITE BIRTHS IN HOSPITALS

VIRGINIA CITIES AND COUNTIES, 1944 - 1945

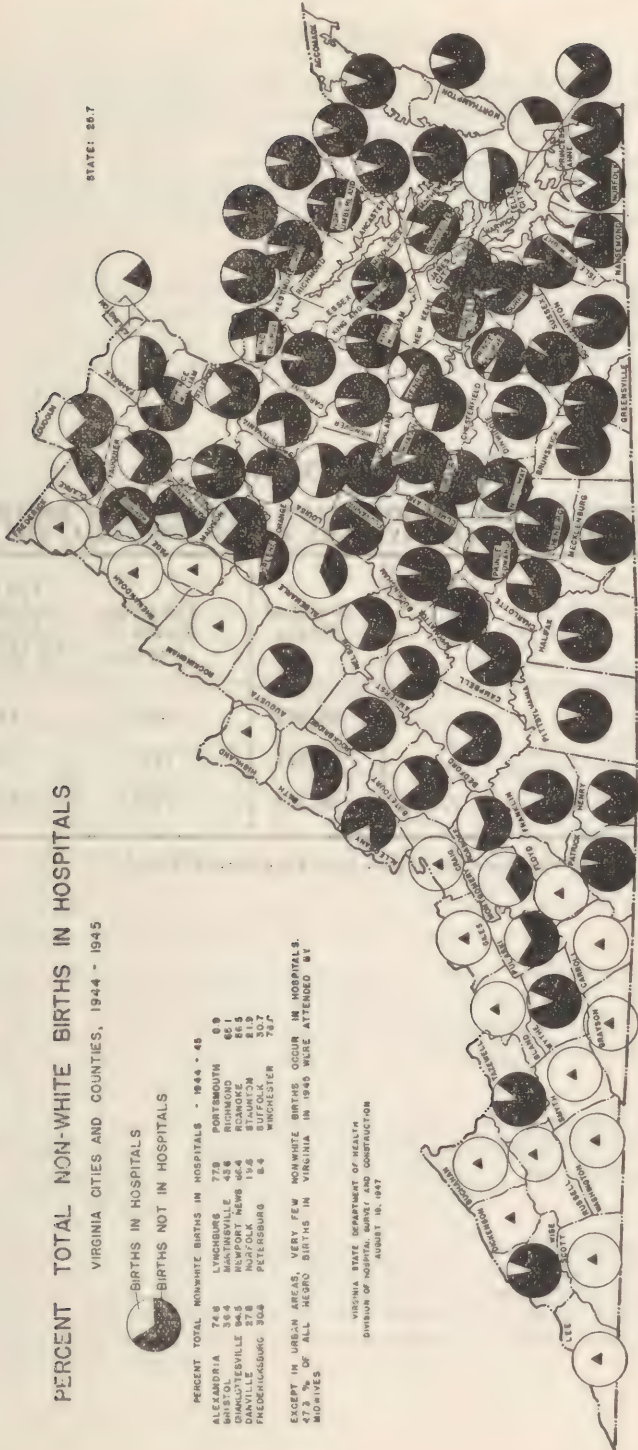


PERCENT TOTAL NON-WHITE BIRTHS IN HOSPITALS - 1944 - 45

|                 |      |            |      |
|-----------------|------|------------|------|
| ALEXANDRIA      | 74.9 | PORTSMOUTH | 6.9  |
| LYNCHBURG       | 72.9 | ROANOKE    | 86.5 |
| CHARLOTTESVILLE | 4.4  | STAMFORD   | 81.9 |
| NEWPORT NEWS    | 66.4 | PETERSBURG | 5.4  |
| NORFOLK         | 15.6 | WINCHESTER | 72.7 |
| DANVILLE        | 27.8 |            |      |
| FREDERICKSBURG  | 30.6 |            |      |

EXCEPT IN URBAN AREAS, VERY FEW NON-WHITE BIRTHS OCCUR IN HOSPITALS.  
 MOST OF ALL NEGRO BIRTHS IN VIRGINIA IN 1945 WERE ATTENDED BY  
 MIDWIVES

VIRGINIA STATE DEPARTMENT OF HEALTH  
 DIVISION OF HOSPITAL, SANITARY AND CONSTRUCTION  
 AUGUST 18, 1947



STATE: 86.7

TABLE XVII

PER CENT BIRTHS IN HOSPITALS AND PER CENT BIRTHS  
ATTENDED BY MIDWIVES, BY COLOR, VIRGINIA, 1945

|                | Number<br>Births | Per Cent<br>Births in<br>Hospital | Per Cent<br>of Births<br>Attended<br>by Midwives |
|----------------|------------------|-----------------------------------|--------------------------------------------------|
| Total .....    | 66,362           | 60.6                              | 14.9                                             |
| White.....     | 49,521           | 71.8                              | 3.9                                              |
| Non-White..... | 16,841           | 27.8                              | 47.3                                             |

SOURCE: Bureau of Vital Statistics, Virginia State Department of Health.

## DEATHS

The number of deaths and the leading causes of death in an area are indicators of the amount and type of hospitalization needed by the population. Mortality rates by race and age show the degree to which hospital facilities are needed by different races and age groups. The number of deaths in hospitals is a measure of the need for additional hospital beds and is used in estimating necessary expansion of hospital facilities.

Virginia's crude death rate ranks 31st among the states (19th for whites and 32nd for non-whites). (Table 18.) The crude rate, however, is misleading, because of Virginia's relatively young population. When the rates are adjusted for age, Virginia's death rate drops in rank to 43rd among the states (41st for whites and 43rd for non-whites).<sup>1</sup>

Age-adjusted death rates in Virginia dropped from 15.2 per 1,000 population in 1920 to 12.3 in 1940. (Table 19.) The decrease in white deaths during this period closely parallels the national decrease. The rate among non-whites, however, did not decrease proportionately with the national rate.

Virginia's age-adjusted death rates in 1940 were higher than the national rates for all races and places of residence. (Table 20.) When separate rates for whites and non-whites are compared, it is seen that the age-adjusted state death rates for whites are slightly higher than national rates, but that the real discrepancy lies between national and state rates for non-whites. Rural death rates, both in the U. S. and Virginia, are lower than urban death rates. Highest death rates prevail in urban places with populations from 2,500 to 10,000. (Table 20.) This has been explained on the grounds that certain relatively expensive types of water supply, sewage disposal and medical services are not generally available in small towns. Studies of this problem suggest that special efforts should be made to improve health services in small urban places.

When deaths in specific age groups in the United States and Virginia are compared, Virginia's death rate is found to be higher in every group. (Table 21.) The greatest difference exists in the infant death rates, the state having a much higher infant mortality rate than the nation as a whole.

A study of the causes of death in Virginia from 1920-1940 (Table 22.), shows a great decrease in the number of deaths from communicable diseases and an increase in the number of deaths from diseases common to old age.

<sup>1</sup> Crude death rates indicate only the actual number of deaths per given population, without consideration for age, race and sex factors which influence mortality. For this reason, they cannot be used to compare mortality conditions among different populations. Age-adjusted rates, which take into consideration the variations in the age composition of the population, give a more accurate picture.



The principal causes of death in Virginia in 1944 were diseases of the heart, intracranial lesions of vascular origin and cancer (Table 23.), all of which may require long periods of hospitalization. Of 33 causes of death, non-white death rates were higher than white in 23 instances.

When the crude and age-adjusted rates for eight leading causes of death in Virginia are compared (Column 1, Table 24 and Table 25.), age-adjusted rates are found to be higher for all eight causes in both white and non-white groups. Non-white death rates show a large increase when adjusted to allow for the large proportion of young persons in the non-white population. The death rate from cancer, which, according to crude death rates, is low in Virginia, is much higher when adjusted to allow for our comparatively small number of older persons in the population.

Age-adjusted death rates by county were not available. Crude death rates indicate fewer deaths in the southwest counties. (Table 26, Map 11.) However, these are counties with a large percentage of young people in the population and with very few non-whites. High death rates are most prevalent in the coastal, midland and Piedmont areas, where there are large Negro populations and more old persons. Crude death rates for whites range from 4.8 in Warwick county to 14.7 in Accomac. Omitting those counties with less than 5.0 per cent non-white population, the highest death rate for non-whites was found in Clarke county (18.6) and the lowest in Fairfax (6.4).

A study of the death rates for preventable diseases and accidents reveals that Virginia has higher death rates from these causes than the United States as a whole. (Table 27.) Such rates should be noticeably reduced by an improved system of medical, hospital and public health service.

### **Deaths in Hospitals:**

The percentage of deaths in institutions in Virginia, including all types of hospitals and also resident institutions, increased from 25.8 per cent in 1937 to 36.5 per cent in 1944. (Table 28.) Deaths in institutions are much more numerous in urban than in rural areas.

A special tabulation of the number and percentage of resident deaths in general hospitals and tuberculosis sanatoria in Virginia in 1945 shows great variation in different areas of the state. (Table 29 and Maps 12 and 13.). The lowest percentage of white deaths in hospitals was found in Northumberland county (8.5 per cent) and highest in Warwick (54.4 per cent). Omitting those counties with populations less than 5 per cent non-white, the lowest percentage of non-white deaths in hospitals occurred in Westmoreland (6.3 per cent), and the highest in Henrico (42.6 per cent).



TABLE XVIII

RANK ORDER AMONG STATES, CRUDE AND AGE-ADJUSTED  
DEATH RATES, WHITE AND NON-WHITE, VIRGINIA, 1940

|                              | Virginia's Rank Among States |       |           |
|------------------------------|------------------------------|-------|-----------|
|                              | Total                        | White | Non-White |
| Crude death rate.....        | 31                           | 19    | 32        |
| Age-adjusted death rate..... | 43                           | 41    | 43        |

SOURCE: Bureau of the Census: Vital Statistics—Special Reports, Vol. 23, No. 1, "Age-adjusted Death Rates, in the U. S., 1900-1940", Table D.

TABLE XIX

DEATHS PER 1,000 POPULATION, WHITE AND NON-WHITE,  
UNITED STATES AND VIRGINIA, 1920-40<sup>1</sup>

| Year      | All Races         |      | White             |      | Non-White         |      |
|-----------|-------------------|------|-------------------|------|-------------------|------|
|           | U.S. <sup>2</sup> | Va.  | U.S. <sup>2</sup> | Va.  | U.S. <sup>2</sup> | Va.  |
| 1940..... | 10.7              | 12.3 | 10.2              | 10.6 | 16.2              | 18.0 |
| 1930..... | 12.5              | 14.4 | 11.7              | 11.9 | 20.1              | 21.7 |
| 1920..... | 14.2              | 15.2 | 13.7              | 13.0 | 20.6              | 20.4 |

<sup>1</sup> By place of occurrence. Based on rates shown in Table 4 of "Vital Statistics Rates in the United States, 1900-1940" and on the age distribution of the total population of the United States as enumerated in 1940 taken as a "Standard".

<sup>2</sup> Death registration states only.

SOURCE: Bureau of the Census, Vital Statistics—Special Reports, Vol. 23, No. 1, June 26, 1945, "Age-adjusted Death Rates in the United States, 1900-1940", Table 1, pp. 13-14.

TABLE XX

DEATHS PER 1,000 POPULATION BY COLOR, URBAN AND RURAL,  
UNITED STATES AND VIRGINIA, 1940<sup>1</sup>

| Residence and Race                       | U. S. | Va.  |
|------------------------------------------|-------|------|
| <b>All Classes</b> .....                 | 10.7  | 12.3 |
| White .....                              | 10.2  | 10.6 |
| Non-White .....                          | 16.2  | 18.2 |
| <b>Urban</b> .....                       | 11.4  | 13.5 |
| White .....                              | 10.8  | 11.5 |
| Non-White .....                          | 18.1  | 19.6 |
| <b>Places of 100,000 or more</b> .....   | 11.4  | 13.4 |
| White .....                              | 10.7  | 11.1 |
| Non-White .....                          | 17.3  | 18.6 |
| <b>Places of 10,000 to 100,000</b> ..... | 11.2  | 13.2 |
| White .....                              | 10.6  | 11.1 |
| Non-White .....                          | 18.8  | 20.2 |
| <b>Places of 2,500 to 10,000</b> .....   | 11.8  | 14.1 |
| White .....                              | 11.2  | 12.8 |
| Non-White .....                          | 19.9  | 21.0 |
| <b>Rural</b> .....                       | 9.8   | 11.7 |
| White .....                              | 9.3   | 10.1 |
| Non-White .....                          | 14.4  | 17.2 |

<sup>1</sup> By place of residence. Based on rates shown in Table II of "Vital Statistics Rates in the United States, 1900-1940" and on the age distribution of the total population of the United States enumerated in 1940 taken as a "standard".

**SOURCE:** Bureau of the Census, Vital Statistics—Special Reports, Vol. 23, No. 1, "Age-adjusted Death Rates in the United States, 1900-1940", Table 7, p. 21 and p. 24.

TABLE XXI

DEATHS PER 1,000 POPULATION, BY AGE AND COLOR,  
UNITED STATES AND VIRGINIA, 1940

|                   | U. S. | Virginia |
|-------------------|-------|----------|
| All ages.....     | 10.8  | 11.1     |
| White.....        | 10.4  | 9.6      |
| Non-white.....    | 13.8  | 15.6     |
| Under 1 year..... | 54.9  | 73.6     |
| White.....        | 50.3  | 62.0     |
| Non-white.....    | 89.2  | 107.1    |
| 1-4 Years.....    | 2.9   | 3.4      |
| White.....        | 2.6   | 2.9      |
| Non-white.....    | 4.8   | 4.7      |
| 5-14 Years.....   | 1.0   | 1.1      |
| White.....        | 1.0   | 0.9      |
| Non-white.....    | 1.5   | 1.7      |
| 15-24 Years.....  | 2.0   | 2.7      |
| White.....        | 1.7   | 1.9      |
| Non-white.....    | 5.0   | 5.1      |
| 25-34 Years.....  | 3.1   | 3.9      |
| White.....        | 2.5   | 2.6      |
| Non-white.....    | 7.9   | 8.3      |
| 35-44 Years.....  | 5.2   | 6.4      |
| White.....        | 4.4   | 4.3      |
| Non-white.....    | 12.4  | 13.1     |
| 45-54 Years.....  | 10.6  | 13.2     |
| White.....        | 9.5   | 9.2      |
| Non-white.....    | 22.9  | 26.0     |
| 55-64 Years.....  | 22.3  | 26.0     |
| White.....        | 21.1  | 20.4     |
| Non-white.....    | 37.7  | 46.5     |
| 65-74 Years.....  | 48.0  | 51.0     |
| White.....        | 47.7  | 48.3     |
| Non-white.....    | 51.6  | 60.4     |
| 75-84 Years.....  | 112.6 | 117.9    |
| White.....        | 113.5 | 123.3    |
| Non-white.....    | 96.8  | 96.3     |
| 85 up.....        | 228.9 | 232.8    |
| White.....        | 235.0 | 264.7    |
| Non-white.....    | 172.0 | 156.4    |

SOURCE: Vital Statistics Rates in the U. S., 1900-1940, Table II, p. 198 and p. 208.



TABLE XXII

DEATHS PER 100,000 POPULATION FROM SELECTED CAUSES,  
BY COLOR, VIRGINIA, 1920-1940

| Causes of Death                                                              | Year    |         |         |
|------------------------------------------------------------------------------|---------|---------|---------|
|                                                                              | 1940    | 1930    | 1920    |
| All causes.....                                                              | 1,104.6 | 1,246.0 | 1,300.3 |
| White.....                                                                   | 958.8   | 1,044.6 | 1,111.4 |
| Non-white.....                                                               | 1,548.5 | 1,795.0 | 1,748.7 |
| Diseases of heart.....                                                       | 248.0   | 201.9   | 136.2   |
| White.....                                                                   | 234.6   | 172.3   | 119.5   |
| Non-white.....                                                               | 288.9   | 282.8   | 175.9   |
| Nephritis.....                                                               | 108.8   | 117.8   | 89.5    |
| White.....                                                                   | 89.1    | 98.2    | 81.5    |
| Non-white.....                                                               | 168.8   | 171.2   | 108.6   |
| Intracranial lesions of Vascular origin.....                                 | 108.5   | 109.4   | 97.6    |
| White.....                                                                   | 88.4    | 88.0    | 84.9    |
| Non-white.....                                                               | 169.7   | 167.7   | 127.8   |
| Pneumonia (all forms) and influenza.....                                     | 95.8    | 126.2   | 200.8   |
| White.....                                                                   | 73.0    | 99.3    | 167.3   |
| Non-white.....                                                               | 165.4   | 199.5   | 280.4   |
| Cancer and other malignant tumors.....                                       | 82.2    | 66.2    | 55.4    |
| White.....                                                                   | 83.4    | 70.9    | 57.4    |
| Non-white.....                                                               | 78.7    | 53.3    | 50.5    |
| Congenital malformations and diseases peculiar<br>to first year of life..... | 66.3    | 81.2    | 97.4    |
| White.....                                                                   | 59.8    | 76.3    | 95.2    |
| Non-white.....                                                               | 86.1    | 94.5    | 102.7   |
| Tuberculosis (all forms).....                                                | 58.1    | 92.4    | 141.4   |
| White.....                                                                   | 36.5    | 60.0    | 93.6    |
| Non-white.....                                                               | 124.0   | 180.5   | 255.1   |
| Tuberculosis (Of the respiratory system).....                                | 52.5    | 83.2    | 127.6   |
| White.....                                                                   | 32.9    | 53.7    | 83.0    |
| Non-white.....                                                               | 112.1   | 163.7   | 233.5   |
| Tuberculosis (other forms).....                                              | 5.6     | 9.1     | 13.8    |
| White.....                                                                   | 3.6     | 6.3     | 10.6    |
| Non-white.....                                                               | 11.9    | 16.8    | 21.6    |
| Other accidents.....                                                         | 50.8    | 53.1    | 59.6    |
| White.....                                                                   | 47.0    | 48.3    | 55.1    |
| Non-white.....                                                               | 62.4    | 66.2    | 70.3    |
| Motor-Vehicle accidents.....                                                 | 31.7    | 23.2    | 4.1     |
| White.....                                                                   | 30.8    | 24.2    | 5.4     |
| Non-white.....                                                               | 34.7    | 20.5    | 1.2     |

TABLE XXII—Continued

| Causes of Death                                   | Year |      |      |
|---------------------------------------------------|------|------|------|
|                                                   | 1940 | 1930 | 1920 |
| Diabetes mellitus.....                            | 20.1 | 15.2 | 9.2  |
| White.....                                        | 19.9 | 14.5 | 10.3 |
| Non-white.....                                    | 20.7 | 17.3 | 6.8  |
| Ill-defined causes of death.....                  | 18.4 | 36.6 | 49.3 |
| White.....                                        | 14.2 | 25.2 | 34.8 |
| Non-white.....                                    | 31.1 | 67.7 | 83.8 |
| Syphilis.....                                     | 17.7 | 20.6 | 14.1 |
| White.....                                        | 6.8  | 10.2 | 9.2  |
| Non-white.....                                    | 51.0 | 49.0 | 25.7 |
| Suicide.....                                      | 14.9 | 12.1 | 5.5  |
| White.....                                        | 18.4 | 15.3 | 6.8  |
| Non-white.....                                    | 4.4  | 3.4  | 2.3  |
| Diarrhea, enteritis, ulceration of intestine..... | 11.8 | 36.9 | 54.0 |
| White.....                                        | 9.1  | 31.8 | 42.9 |
| Non-white.....                                    | 20.1 | 50.7 | 80.5 |
| Homicide.....                                     | 10.5 | 11.9 | 11.1 |
| White.....                                        | 5.0  | 6.9  | 7.4  |
| Non-white.....                                    | 27.2 | 25.6 | 19.8 |
| Senility.....                                     | 9.9  | 18.4 | 22.6 |
| White.....                                        | 9.4  | 15.6 | 20.2 |
| Non-white.....                                    | 11.5 | 26.0 | 28.2 |
| Appendicitis.....                                 | 7.3  | 10.8 | 8.3  |
| White.....                                        | 6.9  | 10.3 | 7.9  |
| Non-white.....                                    | 8.5  | 12.3 | 9.2  |
| Hernia and intestinal obstruction.....            | 6.8  | 7.9  | 9.3  |
| White.....                                        | 5.4  | 5.9  | 7.3  |
| Non-white.....                                    | 11.0 | 13.2 | 14.2 |
| Diseases of prostate.....                         | 5.8  | 5.6  | 3.5  |
| White.....                                        | 5.3  | 5.6  | 3.6  |
| Non-white.....                                    | 7.2  | 5.5  | 3.3  |
| Ulcer of stomach or duodenum.....                 | 5.6  | 5.5  | 2.6  |
| White.....                                        | 4.8  | 4.1  | 1.8  |
| Non-white.....                                    | 7.9  | 9.5  | 4.6  |
| Cirrhosis of liver.....                           | 5.0  | 4.9  | 4.4  |
| White.....                                        | 5.1  | 4.2  | 3.6  |
| Non-white.....                                    | 4.8  | 6.9  | 6.3  |
| Whooping Cough.....                               | 5.0  | 12.0 | 19.7 |
| White.....                                        | 3.4  | 8.8  | 16.0 |
| Non-white.....                                    | 9.7  | 21.0 | 28.5 |

TABLE XXII—Continued

| Causes of Death                               | Year |      |      |
|-----------------------------------------------|------|------|------|
|                                               | 1940 | 1930 | 1920 |
| Bronchitis.....                               | 3.4  | 4.6  | 9.1  |
| White.....                                    | 3.4  | 3.7  | 6.3  |
| Non-white.....                                | 3.5  | 7.0  | 15.8 |
| Alcoholism (ethylism).....                    | 3.0  | 3.5  | 0.8  |
| White.....                                    | 3.0  | 3.4  | 1.0  |
| Non-white.....                                | 3.0  | 3.7  | 0.1  |
| Dysentery.....                                | 2.9  | 8.1  | 9.8  |
| White.....                                    | 2.5  | 7.2  | 10.1 |
| Non-white.....                                | 4.2  | 10.7 | 9.2  |
| Exaphthalmic goiter.....                      | 2.4  | 2.3  | 0.6  |
| White.....                                    | 2.6  | 2.1  | 0.7  |
| Non-white.....                                | 1.7  | 2.9  | 0.3  |
| Pellagra (except alcoholic).....              | 2.2  | 9.0  | 5.7  |
| White.....                                    | 2.1  | 5.9  | 3.6  |
| Non-white.....                                | 2.6  | 17.3 | 10.6 |
| Diphtheria.....                               | 1.9  | 7.0  | 14.2 |
| White.....                                    | 2.0  | 7.1  | 17.0 |
| Non-white.....                                | 1.7  | 6.7  | 7.6  |
| Biliary Calculi.....                          | 1.7  | 2.0  | 2.6  |
| White.....                                    | 1.9  | 2.2  | 3.1  |
| Non-white.....                                | 0.9  | 1.5  | 1.4  |
| Typhoid and paratyphoid fever.....            | 1.1  | 6.4  | 11.1 |
| White.....                                    | 0.9  | 5.3  | 9.5  |
| Non-white.....                                | 1.8  | 9.5  | 14.8 |
| Cerebrospinal (meningococcus) meningitis..... | 1.1  | 2.5  | 1.7  |
| White.....                                    | 0.9  | 2.5  | 1.9  |
| Non-white.....                                | 0.7  | 2.6  | 1.3  |
| Measles.....                                  | 0.8  | 4.5  | 4.0  |
| White.....                                    | 0.8  | 5.0  | 4.2  |
| Non-white.....                                | 0.9  | 3.2  | 3.6  |
| Scarlet fever.....                            | 0.4  | 1.2  | 1.4  |
| White.....                                    | 0.5  | 1.3  | 1.6  |
| Non-white.....                                | 0.3  | 0.6  | 0.7  |
| Malaria.....                                  | 0.2  | 0.7  | 2.2  |
| White.....                                    | 0.1  | 0.3  | 1.0  |
| Non-white.....                                | 0.3  | 1.7  | 5.0  |

SOURCE: Vital Statistic Rates in the United States, 1900-1940, Table 20, p. 362 and p. 398.

**TABLE XXIII**  
**DEATHS PER 100,000 PEOPLE BY PRINCIPAL CAUSE, BY RACE, URBAN AND RURAL, VIRGINIA, 1944**

| Principal Cause of Death                                                 | Death Rate Per<br>100,000 Population |       |           | Ratio<br>Non-White<br>to White<br>Rate x 100 | Death Rate Per<br>100,000 Population |                    | Ratio<br>Rural<br>to Urban<br>Rate x 100 |
|--------------------------------------------------------------------------|--------------------------------------|-------|-----------|----------------------------------------------|--------------------------------------|--------------------|------------------------------------------|
|                                                                          | Total                                | White | Non-White |                                              | Urban <sup>1</sup>                   | Rural <sup>2</sup> |                                          |
|                                                                          |                                      |       |           |                                              |                                      |                    |                                          |
| Total Deaths.....                                                        | 1,026.4                              | 917.7 | 1,367.8   | 149                                          | 1,190.8                              | 958.1              | 80                                       |
| Diseases of the heart.....                                               | 256.4                                | 242.6 | 299.5     | 124                                          | 319.6                                | 230.1              | 72                                       |
| Intracranial lesions of vascular origin.....                             | 104.8                                | 86.0  | 163.4     | 190                                          | 120.9                                | 98.0               | 81                                       |
| Cancer and other malignant tumors.....                                   | 92.8                                 | 96.4  | 81.6      | 85                                           | 122.5                                | 80.5               | 66                                       |
| All other causes.....                                                    | 91.0                                 | 83.0  | 116.3     | 140                                          | 104.8                                | 85.3               | 81                                       |
| Nephritis.....                                                           | 87.0                                 | 71.8  | 134.5     | 187                                          | 97.3                                 | 82.7               | 85                                       |
| Pneumonia (all forms) and Influenza.....                                 | 70.4                                 | 56.0  | 115.7     | 207                                          | 74.3                                 | 68.8               | 93                                       |
| Congenital Malformations and Diseases<br>Peculiar to the First Year..... | 69.5                                 | 66.4  | 79.4      | 120                                          | 79.4                                 | 65.4               | 82                                       |
| Other accidents.....                                                     | 51.9                                 | 51.2  | 53.9      | 105                                          | 58.1                                 | 49.3               | 85                                       |
| Tuberculosis (all forms).....                                            | 48.0                                 | 30.9  | 101.5     | 329                                          | 53.2                                 | 45.8               | 86                                       |
| Senility, ill-defined and unknown causes.....                            | 27.2                                 | 24.1  | 37.1      | 154                                          | 13.8                                 | 32.8               | 238                                      |
| Motor vehicle accidents.....                                             | 19.9                                 | 19.2  | 22.2      | 116                                          | 18.6                                 | 20.4               | 110                                      |
| Diabetes Mellitus.....                                                   | 19.4                                 | 18.6  | 22.0      | 118                                          | 25.0                                 | 17.1               | 68                                       |
| Diarrhea, enteritis, and ulceration of<br>intestines.....                | 13.2                                 | 11.1  | 19.7      | 178                                          | 11.7                                 | 13.8               | 118                                      |
| Syphilis.....                                                            | 12.4                                 | 5.7   | 33.3      | 584                                          | 14.7                                 | 11.4               | 78                                       |
| Suicide.....                                                             | 9.3                                  | 11.4  | 2.7       | 24                                           | 9.9                                  | 8.9                | 90                                       |
| Homicide.....                                                            | 6.6                                  | 4.2   | 22.5      | 536                                          | 16.8                                 | 5.2                | 31                                       |
| Diseases of Pregnancy, childbirth and<br>the puerperim.....              | 6.5                                  | 3.9   | 14.9      | 382                                          | 7.9                                  | 6.0                | 76                                       |
| Appendicitis.....                                                        | 6.1                                  | 5.1   | 9.3       | 182                                          | 7.3                                  | 5.7                | 78                                       |
| Ulcer of the stomach oduodenum.....                                      | 5.6                                  | 5.5   | 6.1       | 111                                          | 9.0                                  | 4.2                | 47                                       |
| Cirrhosis of the liver.....                                              | 5.6                                  | 5.5   | 6.1       | 111                                          | 8.6                                  | 4.3                | 50                                       |



TABLE XXIII—Continued

| Principal Cause of Death                        | Death Rate Per 100,000 Population |       |           | Ratio Non-White to White Rate x 100 | Death Rate Per 100,000 Population |                    | Ratio Rural to Urban Rate x 100 |
|-------------------------------------------------|-----------------------------------|-------|-----------|-------------------------------------|-----------------------------------|--------------------|---------------------------------|
|                                                 | Total                             | White | Non-White |                                     | Urban <sup>1</sup>                | Rural <sup>2</sup> |                                 |
| Whooping cough.....                             | 3.6                               | 2.7   | 6.7       | 248                                 | 2.1                               | 4.3                | 205                             |
| Cerebrospinal (meningococcus) meningitis.....   | 3.4                               | 3.4   | 3.4       | 100                                 | 3.9                               | 3.2                | 82                              |
| Dysentery.....                                  | 2.5                               | 1.6   | 5.3       | 331                                 | 1.2                               | 3.1                | 258                             |
| Polioomyelitis, Poliioencephalitis (acute)..... | 2.1                               | 2.4   | 1.2       | 50                                  | 2.1                               | 2.1                | 100                             |
| Alcoholism (ethyilism).....                     | 1.9                               | 1.7   | 2.2       | 129                                 | 2.4                               | 1.6                | 67                              |
| Measles.....                                    | 1.8                               | 1.9   | 1.3       | 68                                  | 0.9                               | 2.2                | 244                             |
| Exophthalmic Goiter.....                        | 1.8                               | 1.8   | 1.6       | 89                                  | 1.3                               | 1.9                | 146                             |
| Acute rheumatic fever.....                      | 1.1                               | 0.9   | 1.6       | 178                                 | 1.2                               | 1.1                | 92                              |
| Pellagra (except alcoholios).....               | 1.1                               | 1.1   | 1.0       | 91                                  | 0.7                               | 1.2                | 171                             |
| Diphtheria.....                                 | 0.9                               | 0.9   | 0.7       | 78                                  | 0.5                               | 1.1                | 220                             |
| Typhoid and para-typhoid fever.....             | 0.4                               | 0.3   | 0.7       | 233                                 | 0.1                               | 0.4                | 400                             |
| Scarlet fever.....                              | 0.3                               | 0.3   | 0.3       | 100                                 | 0.5                               | 0.2                | 40                              |
| Malaria.....                                    | 0.0                               | 0.0   | 0.0       | 000                                 | 0.1                               | 0.1                | 100                             |

<sup>1</sup> Urban includes Cities of over 10,000 population.<sup>2</sup> Rural includes towns up to 10,000 population.SOURCE: Computed from *Vital Statistics of the U. S. 1944*, Part II, Table 22, p. 448 and the 1944 Population of Virginia.

**TABLE XXIV**  
**DEATHS PER 100,000 POPULATION, BY COLOR, AGE AND PRINCIPAL CAUSE, VIRGINIA, 1940**

| Principal Causes of Death | Age Groups |         |       |       |       |       |        |        |        |        |         |         |
|---------------------------|------------|---------|-------|-------|-------|-------|--------|--------|--------|--------|---------|---------|
|                           | All Ages   | Under 1 | 1-4   | 5-14  | 15-24 | 25-34 | 35-44  | 45-54  | 55-64  | 65-74  | 75-84   | 85 Up   |
| All Causes.....           | 1104.6     | 7222.0  | 338.6 | 107.3 | 278.1 | 395.1 | 633.9  | 1318.1 | 2578.3 | 5062.1 | 11768.3 | 23185.0 |
| White.....                | 958.8      | 6035.7  | 290.1 | 8.7   | 196.6 | 268.8 | 428.7  | 918.3  | 2020.5 | 4790.3 | 12313.5 | 26333.3 |
| Non-white.....            | 1548.5     | 10639.9 | 471.0 | 160.9 | 511.7 | 824.2 | 1298.1 | 2590.6 | 4625.0 | 6024.0 | 9587.3  | 15641.6 |
| Diseases of the heart.... | 248.0      | 22.1    | 5.0   | 5.9   | 12.3  | 29.8  | 96.3   | 336.8  | 786.3  | 1657.9 | 3807.2  | 7447.3  |
| White.....                | 234.6      | 20.8    | 4.1   | 5.0   | 11.3  | 19.0  | 66.5   | 246.9  | 642.7  | 1612.0 | 4102.2  | 8453.2  |
| Non-white.....            | 288.9      | 25.7    | 7.5   | 8.4   | 15.2  | 66.5  | 192.7  | 623.0  | 1313.0 | 1820.5 | 2627.2  | 5037.1  |
| Nephritis (all forms).... | 108.8      | 17.7    | 3.5   | 4.0   | 5.0   | 16.3  | 49.0   | 127.6  | 306.9  | 705.1  | 1917.4  | 3388.0  |
| White.....                | 89.1       | 8.9     | 3.4   | 4.0   | 4.0   | 7.2   | 25.0   | 68.9   | 192.5  | 592.2  | 1915.3  | 3828.3  |
| Non-white.....            | 168.8      | 42.8    | 3.8   | 4.2   | 7.9   | 47.1  | 126.8  | 314.6  | 726.6  | 1104.5 | 1925.7  | 2333.0  |
| Intracranial lesions of   |            |         |       |       |       |       |        |        |        |        |         |         |
| Vascular origin.....      | 108.5      | 15.5    | 2.0   | 1.3   | 2.1   | 7.2   | 39.3   | 143.3  | 364.7  | 769.3  | 1738.6  | 2513.7  |
| White.....                | 88.4       | 20.8    | 2.1   | 1.3   | 1.3   | 4.8   | 15.8   | 71.8   | 234.8  | 667.7  | 1767.4  | 2699.7  |
| Non-white.....            | 169.7      | .....   | 1.9   | 1.4   | 4.3   | 15.4  | 115.6  | 371.0  | 841.4  | 1128.7 | 1623.1  | 2067.9  |
| Pneumonia (all forms)     |            |         |       |       |       |       |        |        |        |        |         |         |
| and Influenza.....        | 95.8       | 1229.4  | 94.1  | 13.0  | 17.6  | 25.6  | 48.1   | 86.8   | 162.2  | 284.3  | 1037.1  | 2435.6  |
| White.....                | 73.0       | 868.2   | 66.7  | 10.8  | 10.6  | 12.4  | 23.4   | 44.8   | 96.6   | 251.5  | 1069.4  | 2987.4  |
| Non-white.....            | 165.4      | 2270.2  | 168.9 | 18.8  | 37.5  | 70.6  | 128.1  | 220.7  | 402.8  | 400.5  | 907.8   | 1113.5  |
| Accidental deaths.....    | 82.5       | 200.9   | 47.3  | 27.9  | 77.1  | 81.0  | 74.0   | 85.0   | 105.4  | 192.5  | 423.6   | 1155.3  |
| White.....                | 77.7       | 151.6   | 41.9  | 23.7  | 77.4  | 71.7  | 63.4   | 72.4   | 94.5   | 202.4  | 450.5   | 1372.0  |
| Non-white.....            | 97.1       | 342.7   | 61.9  | 39.0  | 76.5  | 112.6 | 108.2  | 125.2  | 145.3  | 157.8  | 316.4   | 636.3   |

TABLE XXIV—Continued

| Principal Causes of Death              | Age Groups |         |       |      |       |       |       |       |       |       |       |        |
|----------------------------------------|------------|---------|-------|------|-------|-------|-------|-------|-------|-------|-------|--------|
|                                        | All Ages   | Under 1 | 1-4   | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85 Up  |
| Cancer and other malignant Tumors..... | 82.2       | 6.6     |       |      |       |       |       |       |       |       |       |        |
| White.....                             | 83.4       | 8.9     | 3.5   | 2.1  | 5.2   | 13.7  | 48.4  | 153.4 | 303.0 | 523.2 | 852.8 | 1014.8 |
| Non-white.....                         | 78.7       | .....   | 4.8   | 1.8  | 4.5   | 11.8  | 45.7  | 135.7 | 274.4 | 553.3 | 949.0 | 1217.1 |
|                                        |            |         | ..... | 2.8  | 7.2   | 20.5  | 57.2  | 209.7 | 407.9 | 416.7 | 467.7 | 530.2  |
| Tuberculosis.....                      | 58.1       | 30.9    | 14.1  | 8.6  | 64.4  | 71.9  | 73.1  | 76.3  | 93.4  | 118.6 | 143.0 | 78.1   |
| White.....                             | 36.5       | 23.8    | 10.3  | 2.4  | 20.2  | 36.8  | 45.3  | 51.6  | 79.9  | 128.0 | 158.2 | 110.6  |
| Non-white.....                         | 124.0      | 51.4    | 24.4  | 25.1 | 191.3 | 191.5 | 162.9 | 155.0 | 142.8 | 85.0  | 82.5  | .....  |
| Diabetes Mellitus.....                 | 20.1       | .....   | 1.0   | 0.6  | 2.1   | 2.8   | 8.8   | 31.8  | 80.3  | 148.0 | 200.8 | 140.5  |
| White.....                             | 19.9       | .....   | 1.4   | 0.3  | 1.8   | 3.0   | 4.2   | 24.1  | 75.0  | 163.5 | 226.9 | 88.5   |
| Non-white.....                         | 20.7       | .....   | ..... | 1.4  | 2.9   | 2.0   | 23.6  | 56.4  | 99.4  | 93.0  | 96.3  | 265.1  |

SOURCE: Vital Statistics Rates in the United States, 1900-1940, Table 23, pp. 524-525.

**TABLE XXV**  
**AGE-ADJUSTED DEATH RATES FROM 8 LEADING CAUSES**  
**OF DEATH, VIRGINIA, 1940**

|                                              | Age-Adjusted Death Rates<br>Per 100,000 Population |         |           |
|----------------------------------------------|----------------------------------------------------|---------|-----------|
|                                              | Total                                              | White   | Non-white |
| All causes.....                              | 1,229.1                                            | 1,053.6 | 1,805.9   |
| Diseases of the heart.....                   | 291.7                                              | 269.0   | 369.1     |
| Nephritis (all forms).....                   | 127.9                                              | 102.4   | 217.0     |
| Intracranial lesions of vascular origin..... | 128.1                                              | 101.6   | 219.5     |
| Pneumonia (all forms) and Influenza.....     | 102.9                                              | 78.7    | 181.6     |
| Accidental deaths.....                       | 86.7                                               | 81.1    | 104.4     |
| Cancer.....                                  | 95.9                                               | 94.5    | 100.3     |
| Tuberculosis (all forms).....                | 61.3                                               | 39.1    | 130.4     |
| Diabetes Mellitus.....                       | 23.5                                               | 22.5    | 25.9      |

**SOURCE:** Bureau of the Census, Vital Statistics—Special Reports, Vol. 23, No. 1, "Age-adjusted Death Rates in the U. S., 1900-1940," Table 9.



TABLE XXVI

DEATHS PER 1,000 POPULATION, BY COLOR, VIRGINIA,  
CITIES AND COUNTIES, 1944-45

|                      | Crude death rate 1944-45 |       |           |
|----------------------|--------------------------|-------|-----------|
|                      | Total                    | White | Non-white |
| <b>STATE</b> .....   | 10.1                     | 9.1   | 13.5      |
| <b>Cities</b>        |                          |       |           |
| Alexandria.....      | 7.8                      | 7.0   | 12.2      |
| Bristol.....         | 7.6                      | 7.0   | 12.4      |
| Charlottesville..... | 10.0                     | 9.2   | 12.9      |
| Danville.....        | 10.6                     | 9.2   | 13.6      |
| Fredericksburg.....  | 8.3                      | 7.8   | 10.7      |
| Lynchburg.....       | 10.7                     | 9.5   | 14.7      |
| Martinsville.....    | 5.9                      | 5.1   | 9.0       |
| Newport News.....    | 11.7                     | 9.7   | 14.1      |
| Norfolk.....         | 12.2                     | 9.7   | 17.7      |
| Petersburg.....      | 12.4                     | 10.1  | 15.3      |
| Portsmouth.....      | 11.6                     | 9.3   | 15.0      |
| Richmond.....        | 11.1                     | 10.3  | 12.8      |
| Roanoke.....         | 10.8                     | 9.9   | 14.7      |
| Staunton.....        | 9.3                      | 8.5   | 14.8      |
| Suffolk.....         | 11.3                     | 9.2   | 15.4      |
| Winchester.....      | 12.6                     | 12.2  | 16.4      |
| <b>Counties</b>      |                          |       |           |
| Accomac.....         | 14.8                     | 14.7  | 15.1      |
| Albemarle.....       | 10.5                     | 9.9   | 12.5      |
| Alleghany.....       | 9.5                      | 9.2   | 11.6      |
| Amelia.....          | 9.9                      | 7.8   | 12.0      |
| Amherst.....         | 8.6                      | 7.8   | 10.4      |
| Appomattox.....      | 11.1                     | 9.5   | 15.4      |
| Arlington.....       | 5.6                      | 5.3   | 8.6       |
| Augusta.....         | 9.6                      | 9.3   | 13.0      |
| Bath.....            | 11.6                     | 11.5  | 11.7      |
| Bedford.....         | 10.9                     | 10.0  | 14.2      |
| Bland.....           | 8.6                      | 8.6   | 9.5       |
| Botetourt.....       | 10.2                     | 9.5   | 15.1      |
| Brunswick.....       | 9.1                      | 7.9   | 10.1      |
| Buchanan.....        | 8.9                      | 8.9   | .....     |
| Buckingham.....      | 11.3                     | 9.2   | 14.3      |
| Campbell.....        | 9.4                      | 9.0   | 10.8      |
| Caroline.....        | 11.9                     | 11.3  | 12.4      |
| Carroll.....         | 10.1                     | 7.5   | 10.4      |
| Charles City.....    | 12.0                     | 10.3  | 12.5      |
| Charlotte.....       | 10.3                     | 8.9   | 12.2      |

TABLE XXVI—Continued

|                     | Crude death rate 1944-45 |       |           |
|---------------------|--------------------------|-------|-----------|
|                     | Total                    | White | Non-white |
| Chesterfield.....   | 8.8                      | 7.8   | 13.1      |
| Clarke.....         | 13.3                     | 12.1  | 18.6      |
| Craig.....          | 9.6                      | 9.7   | .....     |
| Culpeper.....       | 11.7                     | 12.1  | 10.7      |
| Cumberland.....     | 13.3                     | 10.8  | 15.0      |
| Dickenson.....      | 6.8                      | 6.8   | 6.7       |
| Dinwiddie.....      | 9.4                      | 11.7  | 8.1       |
| Elizabeth City..... | 7.2                      | 5.7   | 13.5      |
| Essex.....          | 11.2                     | 10.8  | 11.6      |
| Fairfax.....        | 7.3                      | 7.4   | 6.4       |
| Fauquier.....       | 11.1                     | 11.1  | 11.1      |
| Floyd.....          | 8.8                      | 8.5   | 14.1      |
| Fluvanna.....       | 11.7                     | 10.9  | 13.0      |
| Franklin.....       | 8.3                      | 7.9   | 10.2      |
| Frederick.....      | 11.3                     | 10.2  | 11.9      |
| Giles.....          | 9.6                      | 9.4   | 15.5      |
| Gloucester.....     | 12.1                     | 10.6  | 14.9      |
| Goochland.....      | 10.0                     | 8.9   | 10.9      |
| Grayson.....        | 9.1                      | 8.8   | 15.6      |
| Greene.....         | 11.8                     | 10.0  | 22.2      |
| Greensville.....    | 9.9                      | 7.8   | 11.2      |
| Halifax.....        | 10.3                     | 8.5   | 12.5      |
| Hanover.....        | 11.7                     | 11.8  | 11.4      |
| Henrico.....        | 8.8                      | 8.5   | 10.3      |
| Henry.....          | 7.2                      | 5.9   | 10.6      |
| Highland.....       | 10.5                     | 10.0  | 33.1      |
| Isle of Wight.....  | 12.5                     | 12.4  | 12.5      |
| James City.....     | 7.4                      | 5.6   | 11.3      |
| King & Queen.....   | 12.1                     | 10.2  | 13.8      |
| King George.....    | 9.1                      | 8.6   | 10.0      |
| King William.....   | 10.0                     | 10.3  | 9.8       |
| Lancaster.....      | 15.3                     | 13.3  | 17.8      |
| Lee.....            | 8.2                      | 8.2   | 8.4       |
| Loudoun.....        | 10.8                     | 10.2  | 11.9      |
| Louisa.....         | 12.3                     | 10.9  | 14.3      |
| Lunenburg.....      | 9.8                      | 9.1   | 10.7      |
| Madison.....        | 11.4                     | 10.9  | 12.6      |
| Mathews.....        | 14.0                     | 13.1  | 16.8      |
| Mecklenburg.....    | 9.8                      | 8.9   | 10.6      |
| Middlesex.....      | 15.1                     | 15.1  | 15.1      |
| Montgomery.....     | 9.5                      | 9.0   | 15.1      |
| Nansemond.....      | 12.6                     | 11.1  | 13.4      |
| Nelson.....         | 9.8                      | 9.0   | 12.0      |
| New Kent.....       | 11.9                     | 13.7  | 10.6      |
| Norfolk.....        | 6.6                      | 5.1   | 15.1      |

TABLE XXVI—Continued

|                     | Crude death rate 1944-45 |       |           |
|---------------------|--------------------------|-------|-----------|
|                     | Total                    | White | Non-white |
| Northampton.....    | 12.7                     | 12.2  | 13.1      |
| Northumberland..... | 11.6                     | 10.4  | 13.2      |
| Nottoway.....       | 10.1                     | 10.0  | 10.4      |
| Orange.....         | 12.7                     | 12.0  | 14.3      |
| Page.....           | 9.8                      | 9.5   | 17.0      |
| Patrick.....        | 9.7                      | 9.5   | 12.8      |
| Pittsylvania.....   | 9.2                      | 8.4   | 10.9      |
| Powhatan.....       | 11.2                     | 9.1   | 13.8      |
| Prince Edward.....  | 10.9                     | 10.0  | 11.9      |
| Prince Goerge.....  | 9.3                      | 8.1   | 12.2      |
| Princess Anne.....  | 9.7                      | 8.2   | 13.8      |
| Prince William..... | 10.0                     | 9.9   | 10.8      |
| Pulaski.....        | 8.3                      | 8.0   | 10.9      |
| Rappahannock.....   | 11.7                     | 11.0  | 14.1      |
| Richmond.....       | 11.2                     | 9.5   | 14.1      |
| Roanoke.....        | 8.5                      | 8.1   | 13.4      |
| Rockbridge.....     | 10.9                     | 10.5  | 14.9      |
| Rockingham.....     | 10.4                     | 10.1  | 16.8      |
| Russell.....        | 8.3                      | 8.4   | 4.6       |
| Scott.....          | 8.4                      | 8.4   | 3.5       |
| Shenandoah.....     | 11.8                     | 11.8  | 14.2      |
| Smyth.....          | 8.4                      | 8.3   | 13.3      |
| Southampton.....    | 10.6                     | 10.0  | 10.9      |
| Spotsylvania.....   | 11.5                     | 10.1  | 14.9      |
| Stafford.....       | 13.9                     | 12.3  | 22.8      |
| Surry.....          | 11.7                     | 10.9  | 12.2      |
| Sussex.....         | 13.0                     | 13.4  | 12.9      |
| Tazewell.....       | 8.1                      | 8.0   | 8.6       |
| Warren.....         | 10.0                     | 9.4   | 16.2      |
| Warwick.....        | 5.4                      | 4.8   | 6.9       |
| Washington.....     | 9.3                      | 8.9   | 19.6      |
| Westmoreland.....   | 10.5                     | 11.2  | 9.6       |
| Wise.....           | 9.2                      | 9.0   | 13.2      |
| Wythe.....          | 8.3                      | 8.0   | 12.8      |
| York.....           | 11.1                     | 10.4  | 12.4      |

SOURCE: Computed from Virginia State Department of Health Tabulations, 1944 and 1945.

# CRUDE DEATH RATES PER 1000 POPULATION

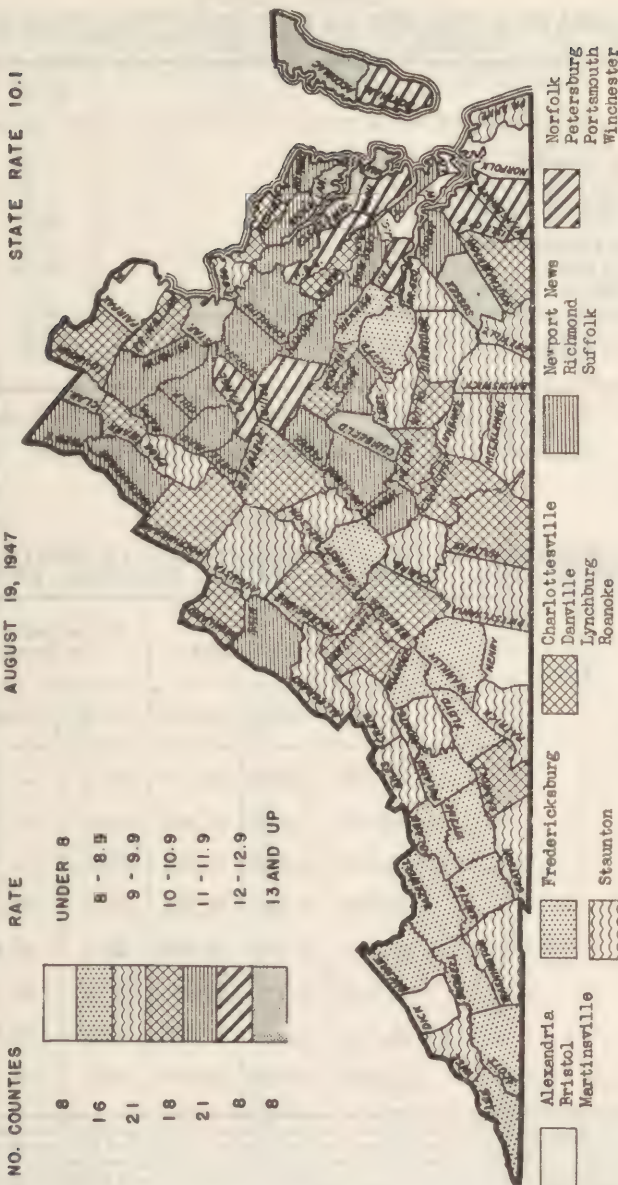
VIRGINIA CITIES AND COUNTIES, 1944 - 45

VIRGINIA STATE DEPARTMENT OF HEALTH

DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION

AUGUST 19, 1947

STATE RATE 10.1



Map 11- Any comparison of crude death rates is subject to limitations, as differences in the age, sex and race characteristics of the populations compared are not taken into account. The apparently low death rates in southwest Virginia are influenced by the large number of young persons in the area and the small percentage of non-whites. If these factors were standardized for each county, death rates in this area would undoubtedly be higher.



**TABLE XXVII**  
**CRUDE DEATH RATES PER 100,000 POPULATION FROM SELECTED**  
**CAUSES, U. S. AND VIRGINIA, 1945**

| Causes                                             | U. S. | Virginia |
|----------------------------------------------------|-------|----------|
| Whooping Cough.....                                | 1.3   | 2.6      |
| Diphtheria.....                                    | 1.2   | 1.6      |
| Tuberculosis (all forms).....                      | 40.1  | 46.6     |
| Syphilis.....                                      | 10.7  | 12.8     |
| Diarrhea, Enteritis (under 2).....                 | 6.9   | 15.1     |
| Premature births.....                              | 24.0  | 30.6     |
| Injury at birth.....                               | 7.4   | 8.8      |
| Other diseases peculiar to first year of life..... | 5.5   | 6.9      |
| Pellagra (except alcoholic).....                   | 0.7   | 1.1      |
| Accidental deaths.....                             | 7.27  | 75.4     |

**SOURCES:** (1) U. S. Public Health Service, National Office of Vital Statistics, V. S. Special Reports, Vol. 27, No.2.  
 (2) Bureau of Vital Statistics, Virginia State Health Department.

**TABLE XXVIII**  
**NUMBER OF DEATHS AND PERCENTAGE OF DEATHS IN**  
**INSTITUTIONS,<sup>1</sup> URBAN AND RURAL, VIRGINIA, 1937-1944**

| Year      | Number of Deaths |                    |                    | Percentage of Deaths in Institutions |                    |                    |
|-----------|------------------|--------------------|--------------------|--------------------------------------|--------------------|--------------------|
|           | Total            | Urban <sup>2</sup> | Rural <sup>2</sup> | Total                                | Urban <sup>2</sup> | Rural <sup>2</sup> |
| 1944..... | 28,739           | 11,947             | 16,792             | 36.5                                 | — <sup>3</sup>     | — <sup>3</sup>     |
| 1943..... | 28,915           | 11,858             | 17,057             | 34.4                                 | — <sup>3</sup>     | — <sup>3</sup>     |
| 1942..... | 29,197           | 11,995             | 17,202             | 32.8                                 | — <sup>3</sup>     | — <sup>3</sup>     |
| 1941..... | 30,700           | 9,339              | 21,361             | 29.7                                 | 38.2               | 25.9               |
| 1940..... | 29,741           | 9,175              | 20,566             | 28.9                                 | 39.8               | 24.0               |
| 1939..... | 28,763           | 8,112              | 20,651             | 27.4                                 | 38.4               | 23.0               |
| 1938..... | 29,714           | 8,310              | 21,404             | 26.6                                 | 39.1               | 21.7               |
| 1937..... | 31,345           | 8,908              | 22,437             | 25.8                                 | 38.2               | 20.9               |

<sup>1</sup> The term institution includes all types of hospitals, sanatoriums, nursing homes and convalescent homes, and also resident institutions, such as homes for the aged and penal establishments. For the most part, deaths classified in institutions take place in general hospitals.

<sup>2</sup> Before 1942, **rural** includes cities up to 10,000 in population, and **urban** includes only places over 10,000. For 1942, 1943 and 1944, **rural** includes to towns up to 2,500 population and **urban** includes all places above 2,500.

<sup>3</sup> Not available by place of residence.

**SOURCES:** Vital Statistics of the United States: Part II for each year.

1937: Tables L and 8.

1938: Tables M and 10.

1939: Tables M and 10.

1940: Tables K and 9.

1941: Tables K and 9.

1942: Tables K and 1.

1943: Tables K and 2.

1944: Tables K and 2.

TABLE XXIX

RESIDENT DEATHS IN HOSPITALS, BY COLOR, AND PER CENT OF  
TOTAL RESIDENT DEATHS OCCURRING IN HOSPITALS,  
VIRGINIA COUNTIES, INCLUDING INDEPENDENT  
CITIES, 1945\*

| Area                | Deaths in Hospitals |           |                          |           |
|---------------------|---------------------|-----------|--------------------------|-----------|
|                     | Number              |           | Per Cent of Total Deaths |           |
|                     | White               | Non-White | White                    | Non-White |
| STATE.....          | 6,277               | 2,328     | 32.4                     | 25.5      |
| Counties            |                     |           |                          |           |
| Accomac.....        | 38                  | 16        | 15.4                     | 9.6       |
| Albemarle.....      | 106                 | 34        | 34.4                     | 26.8      |
| Alleghany.....      | 107                 | 15        | 49.4                     | 38.5      |
| Amelia.....         | 8                   | 5         | 25.0                     | 10.9      |
| Amherst.....        | 25                  | 14        | 26.9                     | 28.6      |
| Appomattox.....     | 10                  | 8         | 16.7                     | 20.0      |
| Arlington.....      | 376                 | 74        | 48.0                     | 49.3      |
| Augusta.....        | 89                  | 17        | 19.6                     | 26.2      |
| Bath.....           | 9                   | 2         | 15.5                     | 25.0      |
| Bedford.....        | 65                  | 18        | 32.0                     | 21.2      |
| Bland.....          | 11                  |           | 20.8                     |           |
| Botetourt.....      | 33                  | 5         | 27.3                     | 19.2      |
| Brunswick.....      | 18                  | 12        | 23.4                     | 10.8      |
| Buchanan.....       | 81                  |           | 34.0                     |           |
| Buckingham.....     | 11                  | 8         | 19.6                     | 11.8      |
| Campbell.....       | 188                 | 64        | 39.0                     | 31.8      |
| Caroline.....       | 12                  | 11        | 21.8                     | 15.5      |
| Carroll.....        | 27                  |           | 15.8                     |           |
| Charles City.....   | 4                   | 3         | 36.4                     | 7.0       |
| Charlotte.....      | 21                  | 16        | 32.8                     | 22.9      |
| Chesterfield.....   | 62                  | 15        | 33.7                     | 18.8      |
| Clarke.....         | 24                  | 5         | 39.3                     | 23.8      |
| Craig.....          | 6                   |           | 18.2                     |           |
| Culpeper.....       | 22                  | 3         | 22.9                     | 8.3       |
| Cumberland.....     | 11                  | 5         | 31.4                     | 9.1       |
| Dickenson.....      | 31                  |           | 25.4                     |           |
| Dinwiddie.....      | 82                  | 65        | 31.2                     | 20.2      |
| Elizabeth City..... | 92                  | 50        | 39.0                     | 37.9      |
| Essex.....          | 6                   | 5         | 18.8                     | 13.2      |
| Fairfax.....        | 114                 | 28        | 34.9                     | 42.4      |
| Fauquier.....       | 52                  | 18        | 31.1                     | 29.5      |
| Floyd.....          | 22                  |           | 24.4                     |           |
| Fluvanna.....       | 7                   | 7         | 16.3                     | 25.9      |
| Franklin.....       | 37                  | 1         | 23.1                     | 29.4      |
| Frederick.....      | 112                 | 6         | 38.1                     | 20.0      |

TABLE XXIX—Continued

| Area                | Deaths in Hospitals |           |                          |           |
|---------------------|---------------------|-----------|--------------------------|-----------|
|                     | Number              |           | Per Cent of Total Deaths |           |
|                     | White               | Non-White | White                    | Non-White |
| Giles.....          | 44                  | 2         | 27.7                     | 22.2      |
| Gloucester.....     | 13                  | 10        | 18.6                     | 22.2      |
| Goochland.....      | 9                   | 6         | 27.3                     | 15.4      |
| Grayson.....        | 23                  |           | 15.1                     |           |
| Greene.....         | 15                  |           | 32.6                     |           |
| Greensville.....    | 17                  | 18        | 37.8                     | 18.9      |
| Halifax.....        | 38                  | 26        | 21.6                     | 13.5      |
| Hanover.....        | 27                  | 15        | 20.1                     | 22.1      |
| Henrico.....        | 658                 | 415       | 36.6                     | 42.6      |
| Henry.....          | 71                  | 15        | 45.2                     | 14.3      |
| Highland.....       | 5                   | 1         | 12.8                     | 25.0      |
| Isle of Wight.....  | 13                  | 8         | 16.5                     | 9.9       |
| James City.....     | 13                  | 9         | 27.7                     | 17.6      |
| King George.....    | 8                   | 4         | 28.6                     | 20.0      |
| King & Queen.....   | 8                   | 5         | 25.0                     | 14.3      |
| King William.....   | 13                  | 4         | 33.3                     | 12.5      |
| Lancaster.....      | 11                  | 7         | 20.0                     | 16.7      |
| Lee.....            | 60                  |           | 23.0                     |           |
| Loudoun.....        | 31                  | 11        | 21.1                     | 21.6      |
| Louisa.....         | 14                  | 8         | 18.9                     | 13.3      |
| Lunenburg.....      | 11                  | 4         | 17.7                     | 8.2       |
| Madison.....        | 14                  | 3         | 19.7                     | 16.7      |
| Mathews.....        | 9                   | 6         | 14.1                     | 19.4      |
| Mecklenburg.....    | 24                  | 31        | 20.9                     | 19.0      |
| Middlesex.....      | 8                   | 6         | 17.0                     | 14.0      |
| Montgomery.....     | 90                  | 13        | 33.0                     | 38.2      |
| Nansemond.....      | 52                  | 50        | 33.1                     | 19.5      |
| Nelson.....         | 23                  | 9         | 23.2                     | 17.0      |
| New Kent.....       | 7                   | 4         | 43.8                     | 18.2      |
| Norfolk.....        | 932                 | 583       | 47.6                     | 37.2      |
| Northampton.....    | 30                  | 19        | 30.9                     | 19.0      |
| Northumberland..... | 5                   | 6         | 8.5                      | 12.5      |
| Nottoway.....       | 12                  | 6         | 18.8                     | 8.3       |
| Orange.....         | 28                  | 9         | 29.5                     | 23.7      |
| Page.....           | 36                  | 1         | 26.5                     | 9.1       |
| Patrick.....        | 19                  | 2         | 16.1                     | 12.5      |
| Pittsylvania.....   | 225                 | 67        | 41.9                     | 19.0      |
| Powhatan.....       | 5                   | 4         | 16.7                     | 9.5       |
| Prince Edward.....  | 14                  | 14        | 19.7                     | 19.4      |
| Prince George.....  | 32                  | 15        | 31.4                     | 20.5      |

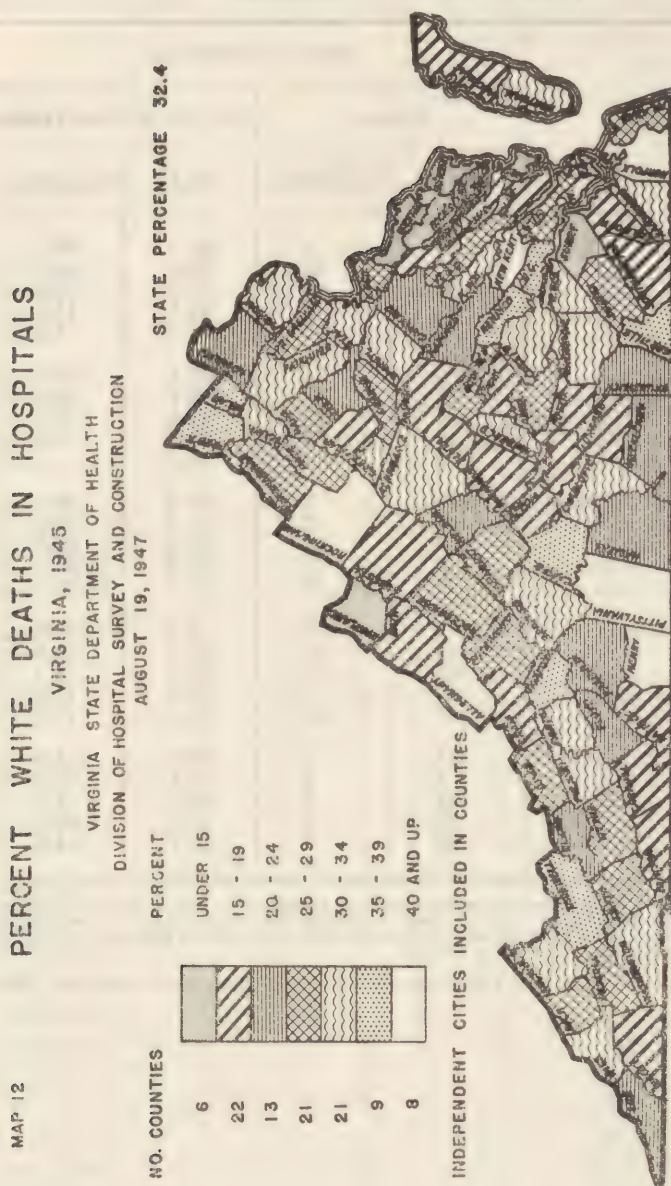
TABLE XXIX—Continued

| Area                | Deaths in Hospitals |           |                          |           |
|---------------------|---------------------|-----------|--------------------------|-----------|
|                     | Number              |           | Per Cent of Total Deaths |           |
|                     | White               | Non-White | White                    | Non-White |
| Prince William..... | 39                  | 6         | 28.5                     | 20.7      |
| Princess Anne.....  | 45                  | 22        | 28.3                     | 24.2      |
| Pulaski.....        | 67                  | 2         | 34.9                     | 10.0      |
| Rappahannock.....   | 12                  | 3         | 26.7                     | 14.3      |
| Richmond.....       | 4                   | 3         | 11.8                     | 8.1       |
| Roanoke.....        | 310                 | 75        | 35.7                     | 33.5      |
| Rockbridge.....     | 57                  | 7         | 25.7                     | 20.6      |
| Rockingham.....     | 162                 | 14        | 44.1                     | 53.8      |
| Russell.....        | 55                  | 1         | 29.9                     | 25.0      |
| Scott.....          | 36                  |           | 18.3                     |           |
| Shenandoah.....     | 63                  | 2         | 27.2                     | 66.7      |
| Smyth.....          | 61                  | 2         | 26.3                     | 33.3      |
| Southampton.....    | 18                  | 27        | 18.9                     | 14.7      |
| Spotsylvania.....   | 48                  | 18        | 33.3                     | 26.1      |
| Stafford.....       | 33                  | 11        | 34.4                     | 35.5      |
| Surry.....          | 2                   | 3         | 8.7                      | 8.6       |
| Sussex.....         | 13                  | 21        | 27.7                     | 19.8      |
| Tazewell.....       | 131                 | 5         | 38.1                     | 18.5      |
| Warren.....         | 29                  | 3         | 32.3                     | 14.3      |
| Warwick.....        | 185                 | 133       | 54.4                     | 41.2      |
| Washington.....     | 117                 | 7         | 30.0                     | 14.3      |
| Westmoreland.....   | 5                   | 2         | 9.1                      | 6.3       |
| Wise.....           | 131                 | 5         | 30.1                     | 13.9      |
| Wythe.....          | 46                  | 3         | 27.2                     | 16.7      |
| York.....           | 22                  | 7         | 29.7                     | 14.3      |

\* Deaths in general hospitals and tuberculosis sanatoria are included. Deaths in mental institutions and Veterans' Hospitals are excluded. The tabulation includes deaths of residents of Virginia occurring in hospitals outside of the state but does not include deaths of residents of other states occurring in hospitals in Virginia.

SOURCE: Bureau of Vital Statistics, Virginia State Department of Health, Special Tabulation, 1947.





Map 12 - The percentage of total deaths in hospitals is one measure of the need for hospital beds. The lowest percentage of white deaths occurring in hospitals is found in the northern and middle peninsulas of the Tidewater Section and in the counties of Highland and Surry.

# MAP 13 PERCENT NONWHITE DEATHS IN HOSPITALS

VIRGINIA, 1945

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

STATE PERCENTAGE 25.5

PERCENT



UNDER 10

10 - 14

15 - 19

20 - 24

25 - 29

30 AND UP  
NONWHITE POP.  
UNDER 5%

NO. COUNTIES

11

18

19

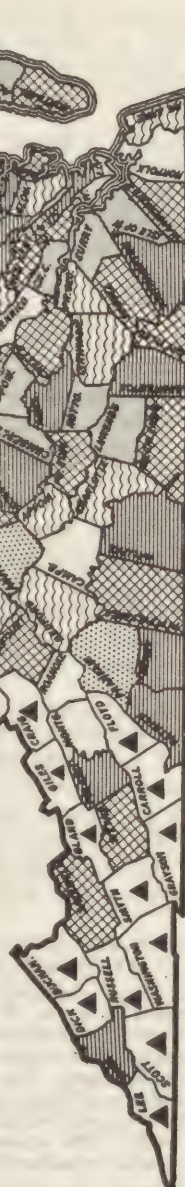
14

8

12

18

INDEPENDENT CITIES INCLUDED IN COUNTIES



Map 13 - The percentage of non-white deaths in hospitals is considerably lower than that of whites. Areas where fewest non-white deaths occur in hospitals are the northern peninsula of the Tidewater Section and several counties of the southeast and Piedmont. The largest percentages of non-white deaths in hospitals are found in urban areas.

## ECONOMIC AND SOCIAL FACTORS

In hospital planning, consideration must be given to questions of financing as well as to the need for hospital services. The former involves both support for annual operations and capital outlays for construction.

Virginia, though it has a higher economic standing than many of the other Southern States, has a low per capita income in relation to the national average. The 1943-1945 average net income per capita in the United States was \$1,118, while in Virginia it was only \$875. In this respect Virginia ranked 37th among the states.<sup>1</sup>

According to estimates of the University of Virginia Bureau of Population and Economic Research, the Virginia per capita income in 1945 ranged from \$231 in Essex County to \$1,886 in Arlington. (Table 30, Map 14.) The highest estimated per capita incomes were found in the urban counties—Arlington, Elizabeth City, Norfolk, Henrico, and Roanoke—while the lowest were found in such rural counties as Essex, Amelia, Highland, Charles City, and Floyd. A comparison of 1940 and 1945 income data from the above source shows an increase in per capita income in every county of the state, with high and low counties remaining in approximately the same relative positions and with the smallest proportionate increases in the poorer areas. The per capita income as given in Columns 1 and 2 of Table 30 should be multiplied by 4.2, the average size of Virginia families for 1940 for approximate income per family. Urban families, at that time, averaged 3.8 persons, rural families 4.5.

The average per capita income figures of the University of Virginia Bureau of Population and Economic Research may be misleading unless used with caution and proper qualifications.<sup>2</sup> In some counties they are apparently too large. The same is true of the estimated effective per family buying power of Sales Management Magazine. (Table 30, Column 3.)<sup>3</sup> A few large incomes raise averages, so it should be remembered that averages are misleading when support of hospital services are considered. Both the Sales Management

<sup>1</sup> Schwartz, Charles F., and Graham, Robert E., Jr., "State Income Payments in 1945". Survey of Current Business, Vol. 26, No. 8, August 1946, Table 4, p. 16.

<sup>2</sup> The National Income Section of the U. S. Dept. of Commerce estimates total income payments by states. Using several complicated formulas, the University of Virginia Bureau of Population and Economic Research attempts to bring these estimates down to a county basis. (In the city counties, cities and counties are calculated together.) The estimates take account of the percentage of the population, white and Negro; urban and rural; and the proportion of employed persons in the various industrial groups—agriculture, manufacturing, trade, professional work. The figures thus obtained are useful for comparative purposes but cannot be considered to be more than income approximations.

<sup>3</sup> Sales Management Magazine takes state income data prepared by the U. S. Dept. of Commerce, and, on the basis of secret formulas, distributes it locally. So far as can be ascertained, not as much weight is given to local occupational groups as is shown in the data prepared by the University of Virginia Bureau of Population and Economic Research. Various checks indicate that such data is more useful for comparative purposes than as exact measure of income.



Magazine and the University Bureau data indicate a much higher income level than wages paid workers covered by Social Security reports and farm income data seem to justify. A few families have income from investments. However, the great majority have little income besides their current salary or wages.

The average monthly wages of the nonfarm workers in industries covered by Social Security records is given in column 4 of Table 30. Such wages vary according to type of industry, racial composition, and sex of workers. The average ranges from \$50.47 in Rappahannock to \$234.49 in Arlington. There were 416,000 workers covered by Virginia Social Security records in the first quarter of 1946.<sup>4</sup> In its 1946 report the Virginia State Department of Labor gives average weekly wages of \$34.46 for those employed as wage workers in Virginia manufacturing industries. This would be an average annual wage of \$1,791.92, assuming employees worked 52 weeks per year which many do not. The average weekly wage of the textile products workers was \$28.98, of furniture and finished lumber products \$30.06, and of iron and steel products \$53.51.

In some cases there is more than one worker per family, which raises the family income. In the 1930 Census, the latest report available gives an average of 1.47 workers per urban family and 1.54 workers per rural family. The incomes reported for farm operators, (Columns 4 and 5, Table 30), usually represent the results of the labor of all the family, whereas in urban families where there are more than one worker, the income is correspondingly increased.

The large percentage of farm operators with gross farm incomes of under \$600, (Column 4, Table 30), who on the basis of census reports numbered around 82,000 in 1944, indicates that many farm families have incomes far below those given in Columns 1 to 3 in Table 30. Gross farm incomes cover the expenses of farm operation as well as the value of home produced supplies. The expenses of farm operation vary according to type of farming and prevailing price levels. They frequently amount to 50 per cent of the gross farm income.

According to data of the U. S. Bureau of Agricultural Economics, the average net cash farm income of Virginia farm operators (owners and tenants) in 1945 may be estimated at \$995,<sup>5</sup> which would be \$725 in terms of 1939 price levels. In 1939, the average was only \$463. Approximately one-third of the farm operators supplement their farm income through nonfarm work. Many of those having such supplementary incomes are among the more prosperous farmer group. In addition to a large number of low income farm operators, Virginia has approximately 50,000 farm wage laborer families who normally have very low incomes. On the basis of full time work which many of them do not have, such families had an annual income of about \$800 in 1945 as compared to \$375 in 1939.

<sup>4</sup> Social Security Bulletin, April 1946.

<sup>5</sup> Bureau Agr. Econ., Income Parity for Agr., Part VI, Section I, 1945.



It has been estimated that Virginia has approximately 100,000 white rural families with marginal standards - low educational levels, poor housing, and low incomes.<sup>6</sup> This figure has probably been reduced somewhat by the relative prosperity of the war period. Marginal standard families are especially prevalent in the mountain counties, but are also found in other areas, particularly among the high tenancy counties of the southside. Furthermore, Virginia has a population approximately one-fourth non-white with the attendant social and economic ills of racial minorities. Although no recent figures are available showing comparative incomes of whites and non-whites, many studies indicate a great discrepancy between the two. According to Occupational Census Reports, only 1.5% of all employed Negro men in 1940 were engaged as professional or semi-professional workers, and only 1.2% as proprietors, managers and officials. The great majority of Negro workers are employed in unskilled or relatively unskilled occupations, with incomes too low to maintain decent standards of living. The Social Security Board reports in 1939 indicated that of the 26,616 Negro nonfarm workers in Virginia, 76 per cent of the men and 93 per cent of the women earned less than \$600 annually.<sup>7</sup>

In addition to the frequent problem of low income, Virginia workers have to support a large number of dependents. In 1940 there were 524 persons under 15 and over 65 for every 1,000 persons between 15 and 65.<sup>8</sup>

It is evident from the income figures given that many Virginia people are unable to pay for adequate medical and hospital services.

That such service has been inadequate may be illustrated by Virginia's status in regard to rejections for military service during World War II. During the period February, 1943, through August, 1943, the national percentage of registrants rejected for military service was 39.2. In Virginia, the percentage was 52.2; only five states had higher rejection rates.<sup>9</sup> Because of the widely known poor health conditions among non-whites, this figure may be thought to be heavily weighted by the rejection rate of Negro men. However, 45.5 per cent of **white** registrants in Virginia were rejected, as compared with the national percentage of 36.0. Among Negro registrants, 63.9 per cent were rejected in Virginia and 56.9 per cent in the nation as a whole.

Further light on economic status is afforded by the data of Table 31, which shows per capita property values as estimated by the State Department of Taxation. Such data is of significance in connection with possible financing of hospital construction and maintenance from public revenues.

<sup>6</sup> Va. Agr. Exp. Sta., Blacksburg, Va., Bul. 335, July, 1941, Garnett, W. E., and Edwards, A. D., "Virginia's Marginal Population, A Study in Rural Poverty."

<sup>7</sup> Va. State College Gazette, Vol. 51, No. 1, Feb., 1945, "Disadvantaging Factors in the life of Rural Virginia Negroes", p. 11.

<sup>8</sup> Computed from Table 7.

<sup>9</sup> U. S. Senate Hearings Subcommittee on Wartime Health and Education.

TABLE XXX

ESTIMATED PER CAPITA INCOME 1945 AND 1940, ESTIMATED PER FAMILY INCOME 1945, AVERAGE MONTHLY WAGES, FIRST QUARTER, 1946, OF WORKERS IN INDUSTRIES COVERED BY SOCIAL SECURITY, AND PER CENT OF FARM OPERATORS WITH GROSS FARM INCOMES UNDER \$600, 1944, VIRGINIA

| Area                | Est. Income Per Capita <sup>1</sup> |        | Estimated Effective Buying Inc. Per Family 1945 <sup>2</sup> | Avg. Mthly Wages of Soc. Sec. Covered Workers <sup>3</sup> | Avg. Gross Farm Income Per Farm Operator <sup>4</sup> | Pct. of Farm Operators with Gross Farm Incomes of Under \$600 <sup>5</sup> |
|---------------------|-------------------------------------|--------|--------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------|
|                     | 1945                                | 1940   |                                                              |                                                            |                                                       |                                                                            |
| STATE.....          | \$ 885                              | \$ 468 | \$ 3,606                                                     | \$.....                                                    | \$ 1,845                                              | 40                                                                         |
| Counties            |                                     |        |                                                              |                                                            |                                                       |                                                                            |
| Accomac.....        | 730                                 | 344    | 1,873                                                        | 100.21                                                     | 5,774                                                 | 8                                                                          |
| Albemarle.....      | 749                                 | 406    | 5,259                                                        | 125.72                                                     | 1,981                                                 | 56                                                                         |
| Alleghany.....      | 941                                 | 572    | 4,515                                                        | 185.42                                                     | 1,030                                                 | 44                                                                         |
| Amelia.....         | 290                                 | 124    | 1,312                                                        | 70.71                                                      | 1,681                                                 | 36                                                                         |
| Amherst.....        | 509                                 | 254    | 1,818                                                        | 124.17                                                     | 1,235                                                 | 41                                                                         |
| Appomattox.....     | 458                                 | 190    | 3,506                                                        | 103.98                                                     | 1,622                                                 | 22                                                                         |
| Arlington.....      | 1,886                               | 1,160  | 3,142                                                        | 234.49                                                     | 2,103                                                 | .....                                                                      |
| Augusta.....        | 764                                 | 418    | 3,959                                                        | 161.28                                                     | 2,630                                                 | 41                                                                         |
| Bath.....           | 478                                 | 252    | 3,281                                                        | 134.11                                                     | 1,126                                                 | 56                                                                         |
| Bedford.....        | 484                                 | 240    | 2,092                                                        | 156.54                                                     | 1,315                                                 | 44                                                                         |
| Bland.....          | 342                                 | 183    | 1,654                                                        | 84.66                                                      | 1,182                                                 | 43                                                                         |
| Botetourt.....      | 528                                 | 271    | 2,215                                                        | 140.91                                                     | 1,761                                                 | 48                                                                         |
| Brunswick.....      | 455                                 | 155    | 2,527                                                        | 132.31                                                     | 2,233                                                 | 19                                                                         |
| Buchanan.....       | 379                                 | 327    | 2,531                                                        | 222.57                                                     | 572                                                   | 61                                                                         |
| Buckingham.....     | 328                                 | 178    | 1,866                                                        | 88.96                                                      | 954                                                   | 53                                                                         |
| Campbell.....       | 979                                 | 574    | 4,612                                                        | 130.14                                                     | 1,303                                                 | 44                                                                         |
| Caroline.....       | 569                                 | 185    | 2,330                                                        | 95.28                                                      | 1,708                                                 | 32                                                                         |
| Carroll.....        | 340                                 | 157    | 1,287                                                        | 135.61                                                     | 998                                                   | 40                                                                         |
| Charles City.....   | 296                                 | 166    | 1,673                                                        | 88.26                                                      | 1,237                                                 | 71                                                                         |
| Charlotte.....      | 355                                 | 136    | 1,721                                                        | 72.47                                                      | 1,474                                                 | 36                                                                         |
| Chesterfield.....   | 907                                 | 574    | 1,720                                                        | 195.44                                                     | 1,139                                                 | 66                                                                         |
| Clarke.....         | 741                                 | 320    | 3,662                                                        | 149.42                                                     | 5,662                                                 | 29                                                                         |
| Craig.....          | 455                                 | 188    | 2,630                                                        | 89.18                                                      | 1,594                                                 | 18                                                                         |
| Culpeper.....       | 500                                 | 263    | 3,803                                                        | 130.86                                                     | 2,183                                                 | 45                                                                         |
| Cumberland.....     | 349                                 | 133    | 1,625                                                        | 76.23                                                      | 1,392                                                 | 43                                                                         |
| Dickenson.....      | 408                                 | 247    | 2,067                                                        | 189.03                                                     | 585                                                   | 66                                                                         |
| Dinwiddie.....      | 673                                 | 340    | 5,197                                                        | 91.86                                                      | 2,285                                                 | 26                                                                         |
| Elizabeth City..... | 1,684                               | 1,012  | 3,254                                                        | 118.89                                                     | 3,437                                                 | .....                                                                      |
| Essex.....          | 231                                 | 199    | 2,174                                                        | 113.44                                                     | 1,168                                                 | 48                                                                         |
| Fairfax.....        | 990                                 | 584    | 1,561                                                        | 168.02                                                     | 2,394                                                 | 48                                                                         |

TABLE XXX—Continued

| Area                | Est. Income<br>Per Capita <sup>1</sup> |        | Esti-<br>mated<br>Effective<br>Buying<br>Inc. Per<br>Family<br>1945 <sup>2</sup> | Avg.<br>Mthly<br>Wages of<br>Soc. Sec.<br>Covered<br>Workers <sup>3</sup> | Avg.<br>Gross<br>Farm<br>Income<br>Per<br>Farm<br>Operator <sup>4</sup> | Pct. of<br>Farm<br>Opera-<br>tors with<br>Gross<br>Farm In-<br>comes of<br>Under<br>\$600 <sup>5</sup> |
|---------------------|----------------------------------------|--------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                     | 1945                                   | 1940   |                                                                                  |                                                                           |                                                                         |                                                                                                        |
| Fauquier.....       | 487                                    | 216    | 3,995                                                                            | 137.62                                                                    | 3,202                                                                   | 41                                                                                                     |
| Floyd.....          | 301                                    | 129    | 1,789                                                                            | 78.67                                                                     | 1,196                                                                   | 26                                                                                                     |
| Fluvanna.....       | 449                                    | 138    | 1,994                                                                            | 93.85                                                                     | 1,147                                                                   | 51                                                                                                     |
| Franklin.....       | 420                                    | 157    | 1,919                                                                            | 137.57                                                                    | 1,670                                                                   | 32                                                                                                     |
| Frederick.....      | 899                                    | 510    | 4,434                                                                            | 145.30                                                                    | 2,747                                                                   | 41                                                                                                     |
| Giles.....          | \$ 532                                 | \$ 280 | \$ 2,479                                                                         | \$ 165.00                                                                 | \$ 1,153                                                                | 48                                                                                                     |
| Gloucester.....     | 565                                    | 221    | 2,141                                                                            | 114.84                                                                    | 805                                                                     | 68                                                                                                     |
| Goochland.....      | 314                                    | 117    | 1,620                                                                            | 79.21                                                                     | 1,475                                                                   | 50                                                                                                     |
| Grayson.....        | 392                                    | 218    | 3,107                                                                            | 106.04                                                                    | 1,000                                                                   | 47                                                                                                     |
| Greene.....         | 342                                    | 128    | 1,753                                                                            | 76.00                                                                     | 800                                                                     | 63                                                                                                     |
| Greensville.....    | 634                                    | 275    | 3,084                                                                            | 129.34                                                                    | 2,510                                                                   | 8                                                                                                      |
| Halifax.....        | 451                                    | 166    | 2,494                                                                            | 121.47                                                                    | 2,079                                                                   | 12                                                                                                     |
| Hanover.....        | 589                                    | 287    | 3,030                                                                            | 95.33                                                                     | 1,728                                                                   | 44                                                                                                     |
| Henrico.....        | 1,263                                  | 775    | 5,636                                                                            | 150.26                                                                    | 2,208                                                                   | 62                                                                                                     |
| Henry.....          | 901                                    | 494    | 3,318                                                                            | 149.64                                                                    | 949                                                                     | 46                                                                                                     |
| Highland.....       | 296                                    | 159    | 2,138                                                                            | 69.68                                                                     | 1,571                                                                   | 42                                                                                                     |
| Isle of Wight.....  | 538                                    | 233    | 2,779                                                                            | 166.37                                                                    | 3,755                                                                   | 10                                                                                                     |
| James City.....     | 861                                    | 500    | 4,014                                                                            | 56.47                                                                     | 2,219                                                                   | 50                                                                                                     |
| King & Queen.....   | 345                                    | 145    | 1,543                                                                            | 76.46                                                                     | 1,035                                                                   | 54                                                                                                     |
| King George.....    | 487                                    | 266    | 1,625                                                                            | 81.78                                                                     | 1,053                                                                   | 59                                                                                                     |
| King William.....   | 660                                    | 353    | 3,328                                                                            | 171.40                                                                    | 1,529                                                                   | 59                                                                                                     |
| Lancaster.....      | 525                                    | 302    | 3,649                                                                            | 106.25                                                                    | 989                                                                     | 60                                                                                                     |
| Lee.....            | 489                                    | 306    | 2,338                                                                            | 179.35                                                                    | 1,063                                                                   | 47                                                                                                     |
| Loudoun.....        | 498                                    | 259    | 3,983                                                                            | 138.11                                                                    | 3,962                                                                   | 33                                                                                                     |
| Louisa.....         | 314                                    | 162    | 2,560                                                                            | 103.15                                                                    | 892                                                                     | 62                                                                                                     |
| Lunenburg.....      | 456                                    | 181    | 2,390                                                                            | 95.26                                                                     | 2,298                                                                   | 17                                                                                                     |
| Madison.....        | 366                                    | 162    | 1,978                                                                            | 98.33                                                                     | 1,593                                                                   | 44                                                                                                     |
| Mathews.....        | 561                                    | 271    | 2,624                                                                            | 104.47                                                                    | 766                                                                     | 63                                                                                                     |
| Mecklenburg.....    | 440                                    | 178    | 3,118                                                                            | 97.77                                                                     | 2,119                                                                   | 15                                                                                                     |
| Middlesex.....      | 576                                    | 230    | 2,724                                                                            | 74.36                                                                     | 1,245                                                                   | 64                                                                                                     |
| Montgomery.....     | 734                                    | 430    | 2,803                                                                            | 120.44                                                                    | 1,364                                                                   | 51                                                                                                     |
| Nansemond.....      | 684                                    | 351    | 3,748                                                                            | 97.97                                                                     | 2,997                                                                   | 16                                                                                                     |
| Nelson.....         | 482                                    | 190    | 2,073                                                                            | 139.78                                                                    | 1,405                                                                   | 52                                                                                                     |
| New Kent.....       | 533                                    | 264    | 3,914                                                                            | 81.21                                                                     | 1,585                                                                   | 50                                                                                                     |
| Norfolk.....        | 1,304                                  | 790    | 4,055                                                                            | 145.81                                                                    | 3,626                                                                   | 54                                                                                                     |
| Northampton.....    | 552                                    | 292    | 3,527                                                                            | 106.88                                                                    | 7,101                                                                   | 13                                                                                                     |
| Northumberland..... | 493                                    | 233    | 2,639                                                                            | 99.28                                                                     | 1,260                                                                   | 47                                                                                                     |
| Nottoway.....       | 685                                    | 316    | 3,499                                                                            | 137.67                                                                    | 1,728                                                                   | 42                                                                                                     |
| Orange.....         | 539                                    | 285    | 4,353                                                                            | 128.12                                                                    | 1,423                                                                   | 55                                                                                                     |
| Page.....           | 574                                    | 302    | 2,753                                                                            | 123.56                                                                    | 1,862                                                                   | 39                                                                                                     |



TABLE XXX—Continued

| Area                 | Est. Income<br>Per Capita <sup>1</sup> |      | Esti-<br>mated<br>Effective<br>Buying<br>Inc. Per<br>Family<br>1945 <sup>2</sup> | Avg.<br>Mthly<br>Wages of<br>Soc. Sec.<br>Covered<br>Workers <sup>3</sup> | Avg.<br>Gross<br>Farm<br>Income<br>Per<br>Farm<br>Opera-<br>tor <sup>4</sup> | Pct. of<br>Farm<br>Opera-<br>tors with<br>Gross<br>Farm In-<br>comes of<br>Under<br>\$600 <sup>5</sup> |
|----------------------|----------------------------------------|------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                      | 1945                                   | 1940 |                                                                                  |                                                                           |                                                                              |                                                                                                        |
| Patrick.....         | 359                                    | 126  | 2,269                                                                            | 90.75                                                                     | 1,369                                                                        | 35                                                                                                     |
| Pittsylvania.....    | 697                                    | 353  | 4,082                                                                            | 92.49                                                                     | 2,377                                                                        | 11                                                                                                     |
| Powhatan.....        | 481                                    | 148  | 2,225                                                                            | 66.30                                                                     | 1,555                                                                        | 41                                                                                                     |
| Prince Edward.....   | 759                                    | 268  | 4,113                                                                            | 109.87                                                                    | 1,513                                                                        | 38                                                                                                     |
| Prince George.....   | 837                                    | 453  | 2,980                                                                            | 105.49                                                                    | 1,685                                                                        | 41                                                                                                     |
| Prince William.....  | 1,238                                  | 856  | 4,243                                                                            | 123.11                                                                    | 2,223                                                                        | 52                                                                                                     |
| Princess Anne.....   | 939                                    | 417  | 2,244                                                                            | 137.22                                                                    | 4,558                                                                        | 34                                                                                                     |
| Pulaski.....         | 785                                    | 430  | 2,579                                                                            | 129.83                                                                    | 1,471                                                                        | 56                                                                                                     |
| Rappahannock.....    | 392                                    | 152  | 2,041                                                                            | 50.47                                                                     | 2,710                                                                        | 47                                                                                                     |
| Richmond.....        | 559                                    | 230  | 2,239                                                                            | 139.99                                                                    | 1,608                                                                        | 29                                                                                                     |
| Roanoke.....         | 1,126                                  | 690  | 4,343                                                                            | 180.72                                                                    | 1,678                                                                        | 53                                                                                                     |
| Rockbridge.....      | 592                                    | 314  | 3,569                                                                            | 129.89                                                                    | 1,375                                                                        | 45                                                                                                     |
| Rockingham.....      | 711                                    | 337  | 4,822                                                                            | 124.72                                                                    | 3,873                                                                        | 28                                                                                                     |
| Russell.....         | 440                                    | 230  | 1,873                                                                            | 192.22                                                                    | 1,600                                                                        | 33                                                                                                     |
| Scott.....           | 325                                    | 166  | 1,515                                                                            | 93.49                                                                     | 1,129                                                                        | 36                                                                                                     |
| Shenandoah.....      | 606                                    | 283  | 2,943                                                                            | 127.41                                                                    | 2,728                                                                        | 25                                                                                                     |
| Smyth.....           | 523                                    | 304  | 2,995                                                                            | 136.05                                                                    | 1,538                                                                        | 49                                                                                                     |
| Southampton.....     | 551                                    | 233  | 2,763                                                                            | 110.19                                                                    | 2,917                                                                        | 7                                                                                                      |
| Spotsylvania.....    | 856                                    | 493  | 4,328                                                                            | 130.35                                                                    | 1,418                                                                        | 53                                                                                                     |
| Stafford.....        | 791                                    | 422  | 1,345                                                                            | 136.55                                                                    | 834                                                                          | 66                                                                                                     |
| Surry.....           | 483                                    | 207  | 2,017                                                                            | 62.66                                                                     | 3,132                                                                        | 14                                                                                                     |
| Sussex.....          | 496                                    | 192  | 2,441                                                                            | 90.98                                                                     | 3,081                                                                        | 12                                                                                                     |
| Tazewell.....        | 732                                    | 493  | 3,320                                                                            | 162.82                                                                    | 1,255                                                                        | 58                                                                                                     |
| Warren.....          | 829                                    | 460  | 4,465                                                                            | 173.69                                                                    | 2,064                                                                        | 43                                                                                                     |
| Warwick.....         | 1,030                                  | 617  | 4,787                                                                            | 117.41                                                                    | 1,906                                                                        | .....                                                                                                  |
| Washington.....      | 585                                    | 313  | 3,343                                                                            | 117.61                                                                    | 1,757                                                                        | 27                                                                                                     |
| Westmoreland.....    | 523                                    | 221  | 2,572                                                                            | 104.66                                                                    | 1,918                                                                        | 22                                                                                                     |
| Wise.....            | 576                                    | 437  | 3,053                                                                            | 184.38                                                                    | 707                                                                          | 63                                                                                                     |
| Wythe.....           | 552                                    | 299  | 3,310                                                                            | 134.30                                                                    | 1,606                                                                        | 37                                                                                                     |
| York.....            | 680                                    | 401  | 1,637                                                                            | 108.96                                                                    | 1,335                                                                        | 52                                                                                                     |
| <b>Cities</b>        |                                        |      |                                                                                  |                                                                           |                                                                              |                                                                                                        |
| Alexandria.....      |                                        | 925  |                                                                                  | 162.09                                                                    |                                                                              |                                                                                                        |
| Bristol.....         |                                        | 773  |                                                                                  | 138.27                                                                    |                                                                              |                                                                                                        |
| Buena Vista.....     |                                        | 593  |                                                                                  | 142.20                                                                    |                                                                              |                                                                                                        |
| Charlottesville..... |                                        | 778  |                                                                                  | 137.66                                                                    |                                                                              |                                                                                                        |
| Clifton Forge.....   |                                        | 659  |                                                                                  | 121.21                                                                    |                                                                              |                                                                                                        |



TABLE XXX—Continued

| Area                | Est. Income<br>Per Capita <sup>1</sup> |      | Esti-<br>mated<br>Effective<br>Buying<br>Inc. Per<br>Family<br>1945 <sup>2</sup> | Avg.<br>Mthly<br>Wages of<br>Soc. Sec.<br>Covered<br>Workers <sup>3</sup> | Avg.<br>Gross<br>Farm<br>Income<br>Per<br>Farm<br>Opera-<br>tor <sup>4</sup> | Pct. of<br>Farm<br>Opera-<br>tors with<br>Gross<br>Farm In-<br>comes of<br>Under<br>\$600 <sup>5</sup> |
|---------------------|----------------------------------------|------|----------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
|                     | 1945                                   | 1940 |                                                                                  |                                                                           |                                                                              |                                                                                                        |
| Danville.....       |                                        | 693  |                                                                                  | 124.94                                                                    |                                                                              |                                                                                                        |
| Fredericksburg..... |                                        | 903  |                                                                                  | 169.41                                                                    |                                                                              |                                                                                                        |
| Hampton.....        |                                        | 783  |                                                                                  | 134.30                                                                    |                                                                              |                                                                                                        |
| Harrisonburg.....   |                                        | 968  |                                                                                  | 120.24                                                                    |                                                                              |                                                                                                        |
| Hopewell.....       |                                        | 659  |                                                                                  | 138.96                                                                    |                                                                              |                                                                                                        |
| Lynchburg.....      |                                        | 823  |                                                                                  | 144.54                                                                    |                                                                              |                                                                                                        |
| Newport News.....   |                                        | 615  |                                                                                  | 190.49                                                                    |                                                                              |                                                                                                        |
| Norfolk.....        |                                        | 782  |                                                                                  | 157.50                                                                    |                                                                              |                                                                                                        |
| Martinsville.....   |                                        | 932  |                                                                                  | 120.47                                                                    |                                                                              |                                                                                                        |
| Petersburg.....     |                                        | 609  |                                                                                  | 124.59                                                                    |                                                                              |                                                                                                        |
| Portsmouth.....     |                                        | 629  |                                                                                  | 120.97                                                                    |                                                                              |                                                                                                        |
| Radford.....        |                                        | 749  |                                                                                  | 137.53                                                                    |                                                                              |                                                                                                        |
| Richmond.....       |                                        | 771  |                                                                                  | 175.21                                                                    |                                                                              |                                                                                                        |
| Roanoke.....        |                                        | 794  |                                                                                  | 149.73                                                                    |                                                                              |                                                                                                        |
| South Norfolk.....  |                                        | 641  |                                                                                  | 156.88                                                                    |                                                                              |                                                                                                        |
| Staunton.....       |                                        | 709  |                                                                                  | 142.16                                                                    |                                                                              |                                                                                                        |
| Suffolk.....        |                                        | 712  |                                                                                  | 118.26                                                                    |                                                                              |                                                                                                        |
| Williamsburg.....   |                                        | 638  |                                                                                  | 113.76                                                                    |                                                                              |                                                                                                        |
| Winchester.....     |                                        | 922  |                                                                                  | 138.72                                                                    |                                                                              |                                                                                                        |

## SOURCES:

- <sup>1</sup> University of Virginia Bureau of Population and Economic Research. See text notes for data limitations, p. —.
- <sup>2</sup> Sales Management Magazine, May, 1946. See text notes for data limitations, p. —.
- <sup>3</sup> Special Report. (letter of July 3, 1947), Virginia Unemployment Compensation Commission.
- <sup>4</sup> 1945 Agricultural Census. See text notes for definitions of terms, p. —.

TABLE XXXI

PER CAPITA ESTIMATED TRUE VALUE OF LOCALLY TAXABLE  
WEALTH, VIRGINIA CITIES AND COUNTIES, JANUARY 1, 1944\*

| Area                 | Per Capita<br>True Value<br>of Taxable<br>Wealth | Area                | Per Capita<br>True Value<br>of Taxable<br>Wealth |
|----------------------|--------------------------------------------------|---------------------|--------------------------------------------------|
| State.....           | \$ 1,568                                         |                     |                                                  |
| Cities.....          | 2,009                                            |                     |                                                  |
| Counties.....        | 1,363                                            |                     |                                                  |
| Cities               |                                                  |                     |                                                  |
| Alexandria.....      | \$ 2,357                                         | Newport News.....   | \$ 2,109                                         |
| Bristol.....         | 1,693                                            | Norfolk.....        | 2,111                                            |
| Buena Vista.....     | 742                                              | Petersburg.....     | 1,176                                            |
| Charlottesville..... | 2,146                                            | Portsmouth.....     | 1,193                                            |
| Clifton Forge.....   | 1,805                                            | Radford.....        | 1,471                                            |
| Danville.....        | 1,648                                            | Richmond.....       | 2,245                                            |
| Fredericksburg.....  | 1,728                                            | Roanoke.....        | 2,394                                            |
| Hampton.....         | 1,705                                            | South Norfolk.....  | 1,480                                            |
| Harrisonburg.....    | 2,146                                            | Staunton.....       | 1,665                                            |
| Hopewell.....        | 3,711                                            | Suffolk.....        | 1,838                                            |
| Lynchburg.....       | 1,732                                            | Williamsburg.....   | 1,844                                            |
| Martinsville.....    | 1,595                                            | Winchester.....     | 2,327                                            |
| Counties             |                                                  |                     |                                                  |
| Accomac.....         | 988                                              | Chesterfield.....   | 2,878                                            |
| Albemarle.....       | 1,923                                            | Clarke.....         | 2,091                                            |
| Alleghany.....       | 1,446                                            | Craig.....          | 1,546                                            |
| Amelia.....          | 885                                              | Culpeper.....       | 1,838                                            |
| Amherst.....         | 998                                              | Cumberland.....     | 692                                              |
| Appomattox.....      | 1,038                                            | Dickenson.....      | 1,014                                            |
| Arlington.....       | 2,610                                            | Dinwiddie.....      | 1,089                                            |
| Augusta.....         | 1,702                                            | Elizabeth City..... | 890                                              |
| Bath.....            | 2,066                                            | Essex.....          | 1,032                                            |
| Bedford.....         | 1,407                                            | Fairfax.....        | 2,300                                            |
| Bland.....           | 967                                              | Fauquier.....       | 2,559                                            |
| Botetourt.....       | 1,589                                            | Floyd.....          | 859                                              |
| Brunswick.....       | 817                                              | Fluvanna.....       | 1,374                                            |
| Buchanan.....        | 988                                              | Franklin.....       | 785                                              |
| Buckingham.....      | 710                                              | Frederick.....      | 1,220                                            |
| Campbell.....        | 1,241                                            | Giles.....          | 2,222                                            |
| Caroline.....        | 1,242                                            | Gloucester.....     | 1,472                                            |
| Carroll.....         | 1,105                                            | Goochland.....      | 1,302                                            |
| Charles City.....    | 1,111                                            | Grayson.....        | 1,078                                            |
| Charlotte.....       | 953                                              | Greene.....         | 704                                              |

TABLE XXXI—Continued

| Area                | Per Capita<br>True Value<br>of Taxable<br>Wealth | Area                | Per Capita<br>True Value<br>of Taxable<br>Wealth |
|---------------------|--------------------------------------------------|---------------------|--------------------------------------------------|
| Greensville.....    | 1,060                                            | Patrick.....        | 762                                              |
| Halifax.....        | 867                                              | Pittsylvania.....   | 917                                              |
| Hanover.....        | 1,226                                            | Powhatan.....       | 807                                              |
| Henrico.....        | 2,313                                            | Prince Edward.....  | 1,193                                            |
| Henry.....          | 1,074                                            | Prince George.....  | 894                                              |
| Highland.....       | 1,744                                            | Princess Anne.....  | 1,410                                            |
| Isle of Wight.....  | 1,411                                            | Prince William..... | 1,558                                            |
| James City.....     | 574                                              | Pulaski.....        | 1,595                                            |
| King George.....    | 933                                              | Rappahannock.....   | 1,116                                            |
| King & Queen.....   | 947                                              | Richmond.....       | 1,110                                            |
| King William.....   | 1,340                                            | Roanoke.....        | 1,772                                            |
| Lancaster.....      | 1,105                                            | Rockbridge.....     | 1,263                                            |
| Lee.....            | 714                                              | Rockingham.....     | 1,183                                            |
| Loudoun.....        | 2,581                                            | Russell.....        | 1,069                                            |
| Louisa.....         | 1,156                                            | Scott.....          | 696                                              |
| Lunenburg.....      | 898                                              | Shenandoah.....     | 1,409                                            |
| Madison.....        | 1,164                                            | Smyth.....          | 1,064                                            |
| Mathews.....        | 1,335                                            | Southampton.....    | 991                                              |
| Mecklenburg.....    | 825                                              | Spotsylvania.....   | 1,823                                            |
| Middlesex.....      | 1,040                                            | Stafford.....       | 1,276                                            |
| Montgomery.....     | 1,053                                            | Surry.....          | 1,358                                            |
| Nansemond.....      | 1,079                                            | Sussex.....         | 1,194                                            |
| Nelson.....         | 1,130                                            | Tazewell.....       | 1,197                                            |
| New Kent.....       | 1,642                                            | Warren.....         | 1,713                                            |
| Norfolk.....        | 985                                              | Warwick.....        | 1,014                                            |
| Northampton.....    | 1,392                                            | Washington.....     | 1,085                                            |
| Northumberland..... | 1,190                                            | Westmoreland.....   | 1,066                                            |
| Nottoway.....       | 1,171                                            | Wise.....           | 786                                              |
| Orange.....         | 1,747                                            | Wythe.....          | 1,307                                            |
| Page.....           | 1,372                                            | York.....           | 977                                              |

\* State and City figures based on 1945 population, county figures based on 1944 population.

# ESTIMATED PER CAPITA INCOME

VIRGINIA, 1945

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

STATE AVERAGE \$ 885



Map 14 - It must be remembered that average per capita income figures are raised considerably by a few high incomes. For this reason, such data should be used with caution in considering ability to purchase hospital service. Urban areas have highest per capita incomes.



MAP 15

## PERCENT FARM OPERATORS WITH GROSS FARM INCOME UNDER \$ 600

VIRGINIA, 1944  
 VIRGINIA STATE DEPARTMENT OF HEALTH  
 DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
 AUGUST 19, 1947

NO. COUNTIES\*

PERCENT

STATE 40%



UNDER 20  
 20 - 29  
 30 - 39  
 40 - 49  
 50 - 59  
 60 AND UP

14  
 9  
 12  
 29  
 20  
 13

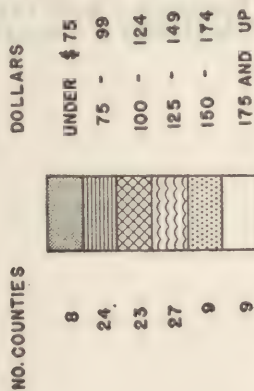


\* Arlington, Elizabeth City and Warwick counties omitted, classified as urban

Map 15 - The Southside counties show a low percentage of farm operators with gross farm incomes of under \$600, but the level of living indices of Map 16 indicate low living standards in this area. The farming system produces a fairly large gross cash income, much of which is consumed by production expense.

**MAP 16 AVERAGE MONTHLY WAGES PER WORKER IN INDUSTRIES COVERED  
BY UNEMPLOYMENT COMPENSATION**

VIRGINIA CITIES AND COUNTIES, JAN. - MAR., 1946



VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



State average unavailable.

Map 16 - Industries with 8 or more nonfarm employees report wages to the unemployment compensation commission. Cities and counties are reported together.

## STANDARDS AND LEVELS OF LIVING

The standards of living of population groups explain to some extent their demand for and use of hospital services. Standard of living indices reflect income, social standards, education, size of family and home environment. Where standards of living are high, it is reasonable to expect greater use of hospital facilities.

Rural level of living indices for the state, including both white and non-white population, indicate that the average levels of living are lowest in areas where subsistence farming prevails and highest in counties where dairying and fruit growing are the principal types of farming. Counties with low levels of living are usually those with a high percentage of non-white population, poor soil, and few economic opportunities. Counties adjacent to urban centers show high rural standards of living, probably due to the opportunities afforded members of farm families to supplement their income with nonfarm work. The composite rural level of living index values in 1940 ranged from 46 in Charles City to 153 in Henrico County. (Table 32.) It was not possible to secure satisfactory data showing urban levels of living. However, it is generally accepted that standards of living in urban places are higher than in rural areas, and that the white population on the whole enjoys a higher level of living than non-whites. The population studies of the Virginia Agricultural Experiment Station indicate that there are many white rural families with low standards of living.<sup>1</sup>

Counties in the mountainous area of Southwest Virginia, which have practically no non-white population, rate extremely low in rural level of living indices. (Map 17).

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<sup>1</sup> Va. Agr. Exp. Sta., Blacksburg, Va., Bul. 335, July 1941, Garnett, W. E. and Edwards, A. D., "Virginia's Marginal Population, a Study in Rural Poverty". Also, Va. Agr. Exp. Sta., Report 31, "The Housing of Virginia Rural Folk".

TABLE XXXII

## RURAL LEVEL OF LIVING INDEXES, BY COUNTY, VIRGINIA, 1940

| Area                | Rural<br>Farm <sup>1</sup> | Rural<br>Non-farm <sup>2</sup> | Composite<br>Rural |
|---------------------|----------------------------|--------------------------------|--------------------|
| U. S. ....          | 100 <sup>3</sup>           | 100 <sup>3</sup>               | 100 <sup>3</sup>   |
| STATE .....         | 86                         | 88                             | 88                 |
| Accomac.....        | 96                         | 83                             | 88                 |
| Albemarle.....      | 90                         | 76                             | 85                 |
| Alleghany.....      | 95                         | 103                            | 101                |
| Amelia.....         | 79                         | 87                             | 80                 |
| Amherst.....        | 78                         | 95                             | 85                 |
| Appomattox.....     | 84                         | 95                             | 87                 |
| Augusta.....        | 106                        | 96                             | 102                |
| Bath.....           | 102                        | 105                            | 103                |
| Bedford.....        | 84                         | 74                             | 82                 |
| Bland.....          | 92                         | 89                             | 91                 |
| Botetourt.....      | 95                         | 88                             | 92                 |
| Brunswick.....      | 75                         | 116                            | 83                 |
| Buchanan.....       | 53                         | 62                             | 58                 |
| Buckingham.....     | 72                         | 55                             | 68                 |
| Campbell.....       | 86                         | 81                             | 84                 |
| Caroline.....       | 80                         | 76                             | 79                 |
| Carroll.....        | 74                         | 70                             | 73                 |
| Charles City.....   | 81                         | 13                             | 46                 |
| Charlotte.....      | 73                         | 86                             | 75                 |
| Chesterfield.....   | 99                         | 129                            | 119                |
| Clarke.....         | 111                        | 96                             | 103                |
| Craig.....          | 96                         | 101                            | 97                 |
| Culpeper.....       | 95                         | 105                            | 99                 |
| Cumbe land.....     | 70                         | 84                             | 72                 |
| Dickenson.....      | 60                         | 73                             | 65                 |
| Dinwiddie.....      | 83                         | 73                             | 81                 |
| Elizabeth City..... | 103                        | 147                            | 144                |
| Essex.....          | 79                         | 97                             | 84                 |
| Fairfax.....        | 112                        | 134                            | 129                |
| Fauquier.....       | 98                         | 99                             | 98                 |
| Floyd.....          | 84                         | 82                             | 84                 |
| Fluvanna.....       | 81                         | 110                            | 85                 |
| Franklin.....       | 79                         | 98                             | 83                 |
| Frederick.....      | 101                        | 94                             | 98                 |
| Giles.....          | 88                         | 108                            | 98                 |
| Gloucester.....     | 83                         | 69                             | 78                 |
| Goochland.....      | 75                         | 69                             | 75                 |
| Grayson.....        | 82                         | 71                             | 79                 |
| Greene.....         | 69                         | 52                             | 67                 |
| Greensville.....    | 66                         | 49                             | 61                 |



TABLE XXXII—Continued

| Area                | Rural<br>Farm <sup>1</sup> | Rural<br>Non-farm <sup>2</sup> | Composite<br>Rural |
|---------------------|----------------------------|--------------------------------|--------------------|
| Halifax.....        | 77                         | 62                             | 75                 |
| Hanover.....        | 88                         | 94                             | 90                 |
| Henrico.....        | 106                        | 162                            | 153                |
| Henry.....          | 78                         | 85                             | 82                 |
| Highland.....       | 99                         | 99                             | 99                 |
| Isle of Wight.....  | 89                         | 82                             | 87                 |
| James City.....     | 97                         | 80                             | 86                 |
| King & Queen.....   | 82                         | 55                             | 78                 |
| King George.....    | 87                         | 76                             | 83                 |
| King William.....   | 80                         | 99                             | 90                 |
| Lancaster.....      | 92                         | 72                             | 80                 |
| Lee.....            | 69                         | 61                             | 65                 |
| Loudoun.....        | 112                        | 106                            | 109                |
| Louisa.....         | 79                         | 80                             | 79                 |
| Lunenburg.....      | 81                         | 122                            | 90                 |
| Madison.....        | 88                         | 58                             | 81                 |
| Mathews.....        | 101                        | 68                             | 88                 |
| Mecklenburg.....    | 78                         | 103                            | 84                 |
| Middlesex.....      | 82                         | 77                             | 80                 |
| Montgomery.....     | 92                         | 105                            | 100                |
| Nansemond.....      | 91                         | 53                             | 73                 |
| Nelson.....         | 77                         | 85                             | 79                 |
| New Kent.....       | 83                         | 51                             | 70                 |
| Norfolk.....        | 96                         | 128                            | 121                |
| Northampton.....    | 100                        | 94                             | 97                 |
| Northumberland..... | 92                         | 80                             | 87                 |
| Nottoway.....       | 80                         | 119                            | 94                 |
| Orange.....         | 93                         | 103                            | 97                 |
| Page.....           | 87                         | 89                             | 88                 |
| Patrick.....        | 68                         | 85                             | 70                 |
| Pittsylvania.....   | 82                         | 83                             | 82                 |
| Powhatan.....       | 81                         | 80                             | 81                 |
| Prince Edward.....  | 74                         | 75                             | 74                 |
| Prince George.....  | 80                         | 110                            | 96                 |
| Prince William..... | 94                         | 116                            | 109                |
| Princess Anne.....  | 96                         | 106                            | 102                |
| Pulaski.....        | 85                         | 72                             | 79                 |
| Rappahannock.....   | 77                         | 70                             | 75                 |
| Richmond.....       | 87                         | 74                             | 83                 |
| Roanoke.....        | 99                         | 137                            | 128                |
| Rockbridge.....     | 96                         | 82                             | 91                 |
| Rockingham.....     | 105                        | 101                            | 104                |
| Russell.....        | 74                         | 84                             | 78                 |
| Scott.....          | 74                         | 83                             | 76                 |
| Shenandoah.....     | 103                        | 115                            | 109                |

TABLE XXXII—Continued

| Area              | Rural<br>Farm <sup>1</sup> | Rural<br>Non-farm <sup>2</sup> | Composite<br>Rural |
|-------------------|----------------------------|--------------------------------|--------------------|
| Smyth.....        | 83                         | 63                             | 74                 |
| Southampton.....  | 77                         | 69                             | 75                 |
| Spotsylvania..... | 91                         | 96                             | 93                 |
| Stafford.....     | 98                         | 91                             | 95                 |
| Surry.....        | 88                         | 72                             | 83                 |
| Sussex.....       | 74                         | 82                             | 76                 |
| Tazewell.....     | 89                         | 83                             | 85                 |
| Warren.....       | 92                         | 108                            | 100                |
| Warwick.....      | 94                         | 152                            | 140                |
| Washington.....   | 87                         | 82                             | 85                 |
| Westmoreland..... | 81                         | 82                             | 81                 |
| Wise.....         | 64                         | 67                             | 66                 |
| Wythe.....        | 95                         | 72                             | 86                 |
| York.....         | 96                         | 83                             | 86                 |

<sup>1</sup> Based on percentage of rural farm dwellings with fewer than 1.51 persons per room, percentage of occupied dwelling units with radios, percentage of farms with gross annual income of more than \$600, percentage of farms reporting autos of 1936 or later model, and medium grade of school completed by rural farm persons 25 years of age and over.

Based on percentage of dwelling units with fewer than 1.51 persons per room, percentage of dwelling units with radios, percentage of dwelling units with running water, percentage of dwelling units with mechanical refrigeration, and medium grade of school completed by persons 25 years of age or over.

Coded to a scale with 100 as the value for the U. S. average.

MAP 17

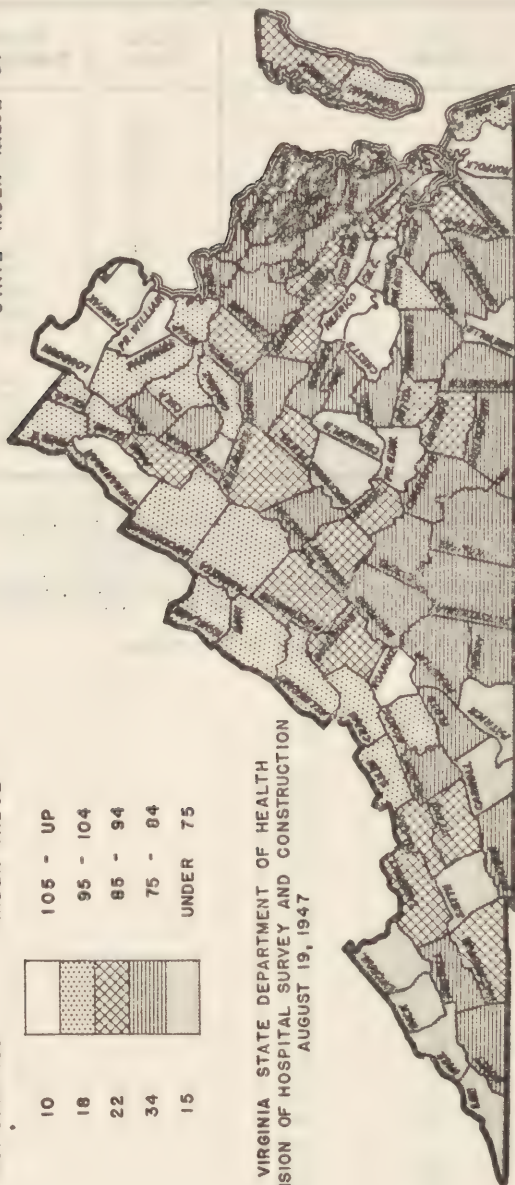
## RURAL LEVEL OF LIVING INDICES

VIRGINIA, 1940

| NO. COUNTIES | INDEX VALUE |
|--------------|-------------|
| 10           | 105 - UP    |
| 18           | 95 - 104    |
| 22           | 85 - 94     |
| 34           | 75 - 84     |
| 15           | UNDER 75    |

STATE INDEX VALUE 83

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



\* Arlington County omitted, classified as urban.

Map 17 - Standards of living do not necessarily reflect income, but the two are closely related.  
This map should be compared with Map 14.

## HOSPITAL PREPAYMENT PLANS

Hospital prepayment plans (generally known as Blue Cross) affect the use of hospital services and the source of hospital finance. Persons who can be sure that all or the larger part of their hospital bills will be paid by hospital associations, or insurance companies, are more inclined to make use of hospital service when it is needed. From the standpoint of the hospital, satisfactory financial contracts with prepayment plans may guarantee payment of bills which might otherwise go uncollected. As Blue Cross enrolls a higher and higher percentage of the population hospitals will approach a basis of guaranteed operating income. That is to say that at some point yet to be attained, the percentage of Blue Cross patients admitted to hospitals will eliminate the present seasonal income peaks of the less urban hospitals and will level the peak months into an approximate straight line income. This in turn will permit more adequately planned fiscal operations and will tend to reduce cost of service to all hospital patients.

While no exact estimate of the percentage of Virginia's population enrolled in hospital or medical care prepayment plans can be made from the data obtainable, it is probable that less than 25 per cent of the people in the state have this form of protection. The great majority of those participating in such plans are urban residents.

Many commercial accident and health insurance companies operate in Virginia, with total premium collections in 1945 amounting to \$7,162,577.<sup>1</sup>

There are five Blue Cross plans in the state, several non-profit plans operated by individual hospitals or groups of hospitals and numerous non-profit industrial plans. The total enrollment of the five Blue Cross plans on July 1, 1946, was 247,531. (300,000 on January 1, 1947). (Table 33.)<sup>2</sup> Of this number only 25,250 were classified as rural residents.

The percentage of the population of the state enrolled in hospital prepayment plans operated by the Blue Cross or by hospitals in November 1, 1946, was 10.5. (Table 35.) Only 4 per cent were enrolled in medical care plans. No data on enrollment by county or by race was available.

Limited data indicates that the number of Negroes participating in non-profit prepayment plans may be rather low. Many Negroes carry policies issued by fraternal orders, which provide a cash indemnity for sickness. Examination of policies indicate that their expenditures for such insurance is large in comparison both with the income of the people and the benefits obtained.

<sup>1</sup> Bureau of Insurance, Virginia State Corporation Commission.

<sup>2</sup> At July 1, 1947 Blue Cross Plans and other non-profit hospital service plans had over 350,000 enrolled. Of these between 45,000 and 50,000 are rural people.



An attempt to provide a hospitalization and medical care prepayment plan within the reach of rural persons was made by the Farmers' Health Association, an organization sponsored by the Farm Security Administration to insure persons receiving farm loans. This prepayment program, which was taken over by the Virginia Hospital Service Association in 1947, covers members and their dependents. In February, 1947, total persons covered numbered 12,253. (Table 36.) Add to this the 25,250 enrolled in Blue Cross and we have a total of 37,503 rural people enrolled in voluntary Blue Cross plans. (Over 45,000 at July 1, 1947).

The small number of rural persons who participate in hospital and medical care prepayment plans may be explained in large measure by the fact that Blue Cross started in the cities and only recently has developed means and ways to enroll rural people. This is beginning to be done in a satisfactory manner through so-called "Community Enrollment", by which the residents of an entire county may enroll. Since rural people constitute the majority of Virginia's population, the small enrollment in hospital and medical care insurance among this group helps to explain the relatively small per cent for the state as a whole with such insurance. The lack of health and medical care insurance among farm people is apparently due to: (1) the cost of this type of insurance in relation to the farm income of normal times (Table 30.); and (2) the lack of appreciation and understanding of the values of hospital and medical care insurance.

Because of cost or inconvenience, country people normally do not use hospitals except in cases of extreme emergency. Rural families do not generally feel that they can afford the expense of hospital insurance alone, since doctors' home and office visits, eye care, and dental care are usually the chief items in medical bills for the majority, and since these are not included in the insurance contracts now available.

Country people do not generally appreciate the importance of a hospital as the scientific place where the modern doctor can more effectively use various types of expensive equipment in the diagnosis and treatment of illnesses. Nor do they adequately appreciate the provisions for care for catastrophic illness, which the modern hospital fills. Neither do they realize the desirability of medical care insurance as an aid to periodic health examinations and prompt treatment of symptoms leading to illness, thus promoting a more general state of positive health. A health and medical care legislative committee is now working on the problem of a medical care insurance plan adapted to the needs of rural and other low income groups.

TABLE XXXIII

## BLUE CROSS ENROLLMENT, VIRGINIA, JULY 1, 1946

| Plan by Headquarters<br>City | Total<br>Enrollment | Rural<br>Enrollment |
|------------------------------|---------------------|---------------------|
| Lynchburg.....               | 6,222               | None                |
| Newport News.....            | 16,404              | 250                 |
| Norfolk.....                 | 34,988              | None                |
| Richmond.....                | 140,051             | 25,000              |
| Roanoke.....                 | 49,866              | None                |
| Total.....                   | 247,531             | 25,250              |

SOURCE: Blue Cross Commission, Chicago, Illinois.

TABLE XXXIV

BLUE CROSS AND MEDICAL AND/OR SURGICAL PLAN  
ENROLLMENT, BLUE CROSS PLANS, VIRGINIA,  
APRIL 1, 1947

| Plan by Headquarters<br>City | Blue Cross<br>Enrollment | Medical and/or<br>Surgical Plan<br>Enrollment |
|------------------------------|--------------------------|-----------------------------------------------|
| Lynchburg.....               | 7,974                    | *                                             |
| Newport News.....            | 19,494                   | *                                             |
| Norfolk.....                 | 37,647                   | *                                             |
| Richmond.....                | 164,448                  | 83,964                                        |
| Roanoke.....                 | 57,114                   | 33,756                                        |

SOURCE: Blue Cross Commission, Chicago, Illinois.

\* Enrollment reported with enrollment of Richmond Plan.

TABLE XXXV

POPULATION SERVED BY BLUE CROSS PLANS AND OTHER NON-PROFIT PLANS, AND PER CENT OF POPULATION ENROLLED IN HOSPITAL AND MEDICAL PLANS, VIRGINIA, 1946\*

| Name of Plan                                   | Area by Headquarters City | 1940 Population of Area |       |       | Hospital Plan Enrollment 1946 <sup>1</sup> | Pct. of Pop. in Area Enrolled in Hosp. Plan | Med. Plan Enrollment 1946 | Pct. of Pop. in Area Enrolled in Med. Plan |
|------------------------------------------------|---------------------------|-------------------------|-------|-------|--------------------------------------------|---------------------------------------------|---------------------------|--------------------------------------------|
|                                                |                           | Total                   | Rural | Urban |                                            |                                             |                           |                                            |
| <b>Blue Cross Plans:</b>                       |                           |                         |       |       |                                            |                                             |                           |                                            |
| Va. Hosp. Serv. Assn.....                      | Richmond                  | 1,328,296               | 70%   | 30%   | 151,175                                    | 11.4%                                       | 61,236                    | 5.0%                                       |
| Piedmont Hosp. Serv. Assn....                  | Lynchburg                 | 99,882                  | 55%   | 45%   | 6,886                                      | 6.8%                                        | 2,446                     | 2.5%                                       |
| Va. Peninsula Hosp. Serv....                   | Newport News              | 110,050                 | 50%   | 50%   | 16,629                                     | 16.0%                                       | 2,065                     | 2.0%                                       |
| Assn.                                          |                           |                         |       |       |                                            |                                             |                           |                                            |
| Tidewater Hosp. Service....                    | Norfolk                   | 258,927                 | 20%   | 80%   | 35,795                                     | 13.4%                                       | 1,345                     | 0.5%                                       |
| Assn.                                          |                           |                         |       |       |                                            |                                             |                           |                                            |
| Hosp. Service Assn. of.....                    | Roanoke                   | 421,592                 | 65%   | 35%   | 51,995                                     | 12.4%                                       | 26,586                    | 6.3%                                       |
| Roanoke                                        |                           |                         |       |       |                                            |                                             |                           |                                            |
| <b>Non-Profit Plans Operated by Hospitals:</b> |                           |                         |       |       |                                            |                                             |                           |                                            |
| Northampton-Accomac.....                       | Nassawadox                | 50,627                  | 80%   | 20%   | 1,154                                      | 2.3%                                        | Just starting             | to enroll in                               |
| Mem. Hosp.                                     |                           |                         |       |       |                                            |                                             | Va. Med. Service.         | "                                          |
| Winchester Mem. Hospital..                     | Winchester                | 26,730                  | 65%   | 35%   | 4,533                                      | 17.0%                                       | 10,542                    | 2.8%                                       |
| S. W. Va. Hosp. Assn.....                      | Wise                      | 381,669                 | 75%   | 25%   | 10,542                                     | 2.8%                                        |                           |                                            |
| Total of all Plans.....                        | .....                     | 2,677,773               | 65%   | 35%   | 278,709                                    | 10.5%                                       | 104,220                   | 4.0%                                       |

\* Based on 1940 Population.

<sup>1</sup> Enrollment refers to individual membership.

TABLE XXXVI

ENROLLMENT, PERSONS HOSPITALIZED, DAYS OF HOSPITALIZATION AND AMOUNT PAID HOSPITALS AND SURGEONS,  
FARMERS' HEALTH ASSOCIATION, DECEMBER,  
1946 AND JANUARY AND FEBRUARY, 1947

| Month          | Families<br>Enrolled | Persons<br>Enrolled | Persons<br>Hos-<br>pitalized | Number<br>Days<br>Hos-<br>pitalized | Amount<br>Paid<br>Hospitals | Amount<br>Paid<br>Surgeons |
|----------------|----------------------|---------------------|------------------------------|-------------------------------------|-----------------------------|----------------------------|
| Dec. 1946..... | 2,219                | 12,481              | 54                           | 372                                 | \$ 1,674                    | \$ 712                     |
| Jan. 1947..... | 2,207                | 12,443              | 39                           | 351                                 | 1,579                       | 750                        |
| Feb. 1947..... | 2,183                | 12,253              | 42                           | 264                                 | 1,636                       | 525                        |

SOURCE: Farmers' Home Administration, U. S. Dept. of Agriculture, Richmond, Virginia.



## TRANSPORTATION AND COMMUNICATION FACILITIES

Hospital usage is conditioned by transportation and communication facilities. Hospitals should be located in communities served by hard-surfaced roads kept free of snow in the wintertime. Good rail and bus transportation and dependable telephone service must also be available.

Good roads and convenient transportation are now general throughout Virginia. No large area of the state can be termed isolated, although families who live at some distance from hard-surfaced roads may find travel difficult in the winter months. One-fourth of all farm dwellings in Virginia were located at distances 0.3 to 5 miles from the nearest all-weather road in 1945. (Table 37, Map 18.) The largest percentage of such dwellings located off all-weather roads was in Buchanan County (54.9) and the smallest percentage in Norfolk County (5.1). In 1945, 84 per cent of Virginia farm dwellings were without telephones and 53 per cent without automobiles. (Table 37, Maps 19 and 20.)

The element of distance from the nearest available hospital is of significance in certain areas of the state. Some residents of the northern peninsula must travel over 75 miles to Richmond where the nearest hospitals are located. While roads are good, the time element in transporting patients is of importance. This is the only area of the state that is a considerable distance from hospital facilities.

The population of the Eastern Shore is dependent upon ferry service for transportation to the mainland, but facilities of a small hospital are available in Northampton County.

TABLE XXXVII

PERCENTAGES OF FARM DWELLINGS WITHOUT AUTOMOBILES  
AND TELEPHONES AND 0.3 TO 5 MILES AND OVER FROM  
NEAREST ALL-WEATHER ROAD, STATE AND COUNTIES,  
VIRGINIA, 1945

| County              | % Farm<br>Dwellings<br>Without<br>Automobiles <sup>1</sup> | % Farm<br>Dwellings<br>Without<br>Telephones <sup>1</sup> | % Farm<br>Dwellings<br>0.3 to 5 miles<br>and over from<br>nearest all-<br>weather road <sup>1</sup> |
|---------------------|------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| THE STATE.....      | 52.2                                                       | 83.9                                                      | 25.6                                                                                                |
| Accomac.....        | 43.9                                                       | 82.0                                                      | 17.2                                                                                                |
| Albemarle.....      | 45.4                                                       | 80.1                                                      | 25.0                                                                                                |
| Alleghany.....      | 47.5                                                       | 76.7                                                      | 13.0                                                                                                |
| Amelia.....         | 49.9                                                       | 93.7                                                      | 22.5                                                                                                |
| Amherst.....        | 59.7                                                       | 87.9                                                      | 30.8                                                                                                |
| Appomattox.....     | 51.6                                                       | 95.0                                                      | 31.5                                                                                                |
| Augusta.....        | 26.5                                                       | 58.9                                                      | 17.7                                                                                                |
| Bath.....           | 56.9                                                       | 71.1                                                      | 13.6                                                                                                |
| Bedford.....        | 53.9                                                       | 86.4                                                      | 21.5                                                                                                |
| Bland.....          | 74.8                                                       | 86.9                                                      | 16.0                                                                                                |
| Botetourt.....      | 49.7                                                       | 74.6                                                      | 14.9                                                                                                |
| Brunswick.....      | 54.7                                                       | 97.3                                                      | 17.2                                                                                                |
| Buchanan.....       | 82.6                                                       | 97.9                                                      | 54.9                                                                                                |
| Buckingham.....     | 66.4                                                       | 95.6                                                      | 44.9                                                                                                |
| Campbell.....       | 49.4                                                       | 89.6                                                      | 22.7                                                                                                |
| Caroline.....       | 41.5                                                       | 90.9                                                      | 24.9                                                                                                |
| Carroll.....        | 79.0                                                       | 83.6                                                      | 33.9                                                                                                |
| Charles City.....   | 50.1                                                       | 92.7                                                      | 34.5                                                                                                |
| Charlotte.....      | 57.2                                                       | 96.2                                                      | 24.0                                                                                                |
| Chesterfield.....   | 23.2                                                       | 75.4                                                      | 9.7                                                                                                 |
| Clarke.....         | 24.1                                                       | 63.9                                                      | 19.0                                                                                                |
| Craig.....          | 53.3                                                       | 50.6                                                      | 9.4                                                                                                 |
| Culpeper.....       | 46.8                                                       | 71.1                                                      | 16.8                                                                                                |
| Cumberland.....     | 44.1                                                       | 95.7                                                      | 24.0                                                                                                |
| Dickenson.....      | 85.1                                                       | 96.6                                                      | 42.7                                                                                                |
| Dinwiddie.....      | 46.0                                                       | 90.5                                                      | 20.4                                                                                                |
| Elizabeth City..... | 28.9                                                       | 58.6                                                      | 10.6                                                                                                |
| Essex.....          | 43.6                                                       | 93.2                                                      | 27.6                                                                                                |
| Fairfax.....        | 17.5                                                       | 57.2                                                      | 5.7                                                                                                 |
| Fauquier.....       | 40.1                                                       | 77.2                                                      | 17.2                                                                                                |
| Floyd.....          | 66.2                                                       | 49.5                                                      | 47.6                                                                                                |
| Fluvanna.....       | 48.9                                                       | 89.7                                                      | 32.2                                                                                                |
| Franklin.....       | 53.3                                                       | 85.4                                                      | 42.4                                                                                                |
| Frederick.....      | 21.1                                                       | 71.7                                                      | 20.6                                                                                                |
| Giles.....          | 72.5                                                       | 77.0                                                      | 19.8                                                                                                |

TABLE XXXVII—Continued

| County              | % Farm<br>Dwellings<br>Without<br>Automobiles <sup>1</sup> | % Farm<br>Dwellings<br>Without<br>Telephones <sup>1</sup> | % Farm<br>Dwellings<br>0.3 to 5 miles<br>and over from<br>nearest all-<br>weather road <sup>1</sup> |
|---------------------|------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Gloucester.....     | 31.2                                                       | 89.1                                                      | 23.9                                                                                                |
| Goochland.....      | 46.5                                                       | 91.3                                                      | 27.8                                                                                                |
| Grayson.....        | 69.2                                                       | 73.7                                                      | 44.4                                                                                                |
| Greene.....         | 61.7                                                       | 92.9                                                      | 30.4                                                                                                |
| Greensville.....    | 59.0                                                       | 99.1                                                      | 37.6                                                                                                |
| Halifax.....        | 51.2                                                       | 96.8                                                      | 28.2                                                                                                |
| Hanover.....        | 27.0                                                       | 84.4                                                      | 36.7                                                                                                |
| Henrico.....        | 18.3                                                       | 70.9                                                      | 9.2                                                                                                 |
| Henry.....          | 62.0                                                       | 95.3                                                      | 26.0                                                                                                |
| Highland.....       | 47.3                                                       | 61.7                                                      | 37.6                                                                                                |
| Isle of Wight.....  | 40.1                                                       | 92.2                                                      | 11.5                                                                                                |
| James City.....     | 33.3                                                       | 84.4                                                      | 16.7                                                                                                |
| King & Queen.....   | 35.6                                                       | 97.7                                                      | 33.2                                                                                                |
| King George.....    | 42.5                                                       | 96.7                                                      | 27.5                                                                                                |
| King William.....   | 40.9                                                       | 88.7                                                      | 20.4                                                                                                |
| Lancaster.....      | 36.7                                                       | 90.3                                                      | 32.4                                                                                                |
| Lee.....            | 86.4                                                       | 94.1                                                      | 14.9                                                                                                |
| Loudoun.....        | 42.0                                                       | 73.0                                                      | 18.4                                                                                                |
| Louisa.....         | 48.3                                                       | 86.7                                                      | 41.3                                                                                                |
| Lunenburg.....      | 46.4                                                       | 94.2                                                      | 33.5                                                                                                |
| Madison.....        | 46.4                                                       | 72.3                                                      | 27.8                                                                                                |
| Mathews.....        | 26.8                                                       | 93.2                                                      | 38.1                                                                                                |
| Mecklenburg.....    | 52.1                                                       | 94.8                                                      | 23.7                                                                                                |
| Middlesex.....      | 34.6                                                       | 93.7                                                      | 25.4                                                                                                |
| Montgomery.....     | 59.1                                                       | 78.3                                                      | 20.4                                                                                                |
| Nansemond.....      | 50.4                                                       | 92.7                                                      | 31.5                                                                                                |
| Nelson.....         | 62.6                                                       | 91.0                                                      | 27.4                                                                                                |
| New Kent.....       | 44.0                                                       | 89.3                                                      | 36.9                                                                                                |
| Norfolk.....        | 37.5                                                       | 81.9                                                      | 5.1                                                                                                 |
| Northampton.....    | 48.2                                                       | 91.5                                                      | 14.8                                                                                                |
| Northumberland..... | 28.3                                                       | 90.9                                                      | 16.9                                                                                                |
| Nottoway.....       | 48.7                                                       | 93.8                                                      | 19.5                                                                                                |
| Orange.....         | 41.1                                                       | 77.4                                                      | 28.1                                                                                                |
| Page.....           | 45.5                                                       | 70.7                                                      | 22.2                                                                                                |
| Patrick.....        | 76.2                                                       | 91.0                                                      | 53.5                                                                                                |
| Pittsylvania.....   | 52.6                                                       | 95.3                                                      | 41.5                                                                                                |
| Powhatan.....       | 33.8                                                       | 88.2                                                      | 12.8                                                                                                |
| Prince Edward.....  | 58.2                                                       | 94.5                                                      | 41.9                                                                                                |
| Prince George.....  | 26.8                                                       | 94.6                                                      | 30.6                                                                                                |
| Princess Anne.....  | 44.1                                                       | 83.6                                                      | 8.2                                                                                                 |

TABLE XXXVII—Continued

| County              | % Farm Dwellings Without Automobiles <sup>1</sup> | % Farm Dwellings Without Telephones <sup>1</sup> | % Farm Dwellings 0.3 to 5 miles and over from nearest all-weather road <sup>1</sup> |
|---------------------|---------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------|
| Prince William..... | 39.3                                              | 69.0                                             | 11.3                                                                                |
| Pulaski.....        | 62.4                                              | 80.3                                             | 14.3                                                                                |
| Rappahannock.....   | 53.3                                              | 80.9                                             | 12.8                                                                                |
| Richmond.....       | 45.9                                              | 91.0                                             | 33.3                                                                                |
| Roanoke.....        | 39.1                                              | 61.1                                             | 11.0                                                                                |
| Rockbridge.....     | 45.1                                              | 67.5                                             | 17.8                                                                                |
| Rockingham.....     | 29.3                                              | 47.0                                             | 20.6                                                                                |
| Russell.....        | 82.5                                              | 92.2                                             | 18.8                                                                                |
| Scott.....          | 88.3                                              | 98.7                                             | 17.8                                                                                |
| Shenandoah.....     | 28.2                                              | 56.5                                             | 17.0                                                                                |
| Smyth.....          | 66.0                                              | 82.3                                             | 17.7                                                                                |
| Southampton.....    | 54.9                                              | 94.3                                             | 35.3                                                                                |
| Spottsylvania.....  | 31.2                                              | 89.6                                             | 35.4                                                                                |
| Stafford.....       | 43.2                                              | 90.2                                             | 37.6                                                                                |
| Surry.....          | 39.8                                              | 90.8                                             | 10.8                                                                                |
| Sussex.....         | 43.0                                              | 94.9                                             | 37.8                                                                                |
| Tazewell.....       | 7.8                                               | 91.3                                             | 17.3                                                                                |
| Warren.....         | 43.6                                              | 80.4                                             | 12.2                                                                                |
| Warwick.....        | 33.1                                              | 64.5                                             | 5.3                                                                                 |
| Washington.....     | 67.7                                              | 79.8                                             | 28.1                                                                                |
| Westmoreland.....   | 45.3                                              | 91.4                                             | 32.3                                                                                |
| Wise.....           | 82.4                                              | 92.5                                             | 16.3                                                                                |
| Wythe.....          | 56.2                                              | 71.8                                             | 10.9                                                                                |
| York.....           | 26.8                                              | 79.4                                             | 16.9                                                                                |

<sup>1</sup> The census reports the number of farms with automobiles and telephones and their distance from all-weather roads, also the total number of farm dwellings and the number of occupied farm dwellings. The percentages of this table are derived by dividing the number with automobiles and telephones by the occupied farm dwellings and subtracting from 100 and by dividing the number of farms 0.3 to 5 miles and over from all-weather roads by the total number of farm dwellings.

**SOURCES:** United States Census of Agriculture, 1945, Vol. 1., Part 15, Virginia and West Virginia, County Table 1, Part 2 of 2, Pages 39-55 and Table 1, Part 1 of 2, Page 18-38.

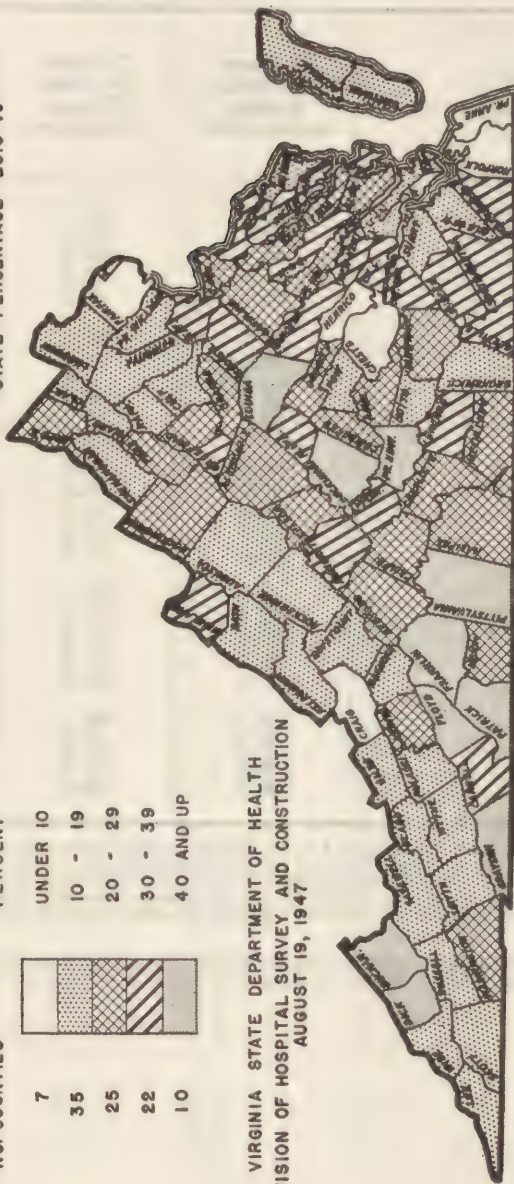


MAP 18

PERCENT FARM DWELLINGS 0.3 TO 5 MILES AND OVER FROM  
NEAREST ALL-WEATHER ROAD  
VIRGINIA, 1945



VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947



\* Arlington county omitted, classified as urban.

Map 18 - Families living on dirt roads may have difficulty in reaching hospital facilities in bad weather. The highest percentages of farm dwellings 0.3 to 5 miles and over from the nearest all-weather road are in Dickenson and Buchanan counties, the Blue Ridge Plateau, Middle Virginia, the Northern Neck and the Southeast.

MAP 19

## PERCENT FARM DWELLINGS WITHOUT TELEPHONES

VIRGINIA, 1945

VIRGINIA STATE DEPARTMENT OF HEALTH  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 19, 1947

STATE PERCENTAGE 83.9%

NO. COUNTIES \* PERCENT

|    |           |
|----|-----------|
| 7  | UNDER 60  |
| 6  | 60 - 69   |
| 18 | 70 - 79   |
| 23 | 80 - 89   |
| 45 | 90 AND UP |



\* Arlington county omitted, classified as urban.

Map 19 - Very few farm dwellings in the state have telephones. The greatest number are found in urban counties and in the Shenandoah Valley.

MAP 20

## PERCENT FARM DWELLINGS WITHOUT AUTOMOBILES

VIRGINIA, 1945

VIRGINIA STATE DEPARTMENT OF HEALTH

DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION

AUGUST 19, 1947

STATE PERCENTAGE 52.2 %

\* NO. COUNTIES \* PERCENT



\* Arlington county omitted, classified as urban.

Map 20 - Residents of farm dwellings in Virginia are more apt to have automobiles than telephones. The percentage of farm dwellings with automobiles is very low in the southwest, but fairly high in other counties of the state.



## SUMMARY

Two factors of primary importance emerge from a study of the preceding data. One, that the population of Virginia, though tending toward urbanization, is still predominately rural, and that the rural areas of the state are low in many indices of hospital and medical care. Two, that the eastern half of Virginia has a large proportion of non-whites in the population, and that this group is far below state averages in nearly every index reflecting hospital and medical services. A program aimed at improved health services in the state must devote careful attention to the particular needs of these two groups.

Among those who most need hospital and medical service, there is often least ability to pay for it. Virginia's non-white population, with fewer economic opportunities than whites, with less education, and with lower standards of living, is not in a position to support adequate separate hospitals. Another group with little ability to pay for hospital service is the white marginal population. The number of rural white families in Virginia with bare subsistence standards was estimated at 100,000 in 1940. This number has probably been reduced somewhat by the prosperity of the war period. These families are scattered throughout the state but tend to be concentrated in mountain coves and rural areas where the soil is poor or worn out and where there are few economic opportunities. Because of the high birth rate in the marginal group, there is a trend towards an increasing number of persons on the lower rounds of the socio-economic ladder.

That social, cultural and economic factors play an important role in the demand for, use of, and ability to pay for hospital service cannot be denied. They also influence need for hospital service. To adequately meet the hospital and medical care needs of underprivileged groups, an approach along many lines beside that of hospital service is needed.

Certain areas of the state are noticeably low in many of the social, economic and health indices studied. Among these are the northern and middle peninsulas of Tidewater Virginia, particularly the counties of Westmoreland, Northumberland, Richmond and Lancaster. There is no hospital in this section of the state at present.

Another area low in many indices is a section of Middle Virginia including the counties of Buckingham, Fluvanna, Appomattox, Powhatan, Cumberland and Amelia. This is an area of poor soil and few economic opportunities, with a considerable number of marginal families, both in the white and non-white groups.

The Eastern Shore and certain counties in Eastern Southside Virginia - Sussex, Southampton, Surry, Isle of Wight and Nansemond - also stand out as areas low in many indices. These counties have a large non-white population.

The western part of the state, with its predominantly white population, is low in many indices. Poorest conditions apparently exist



in the isolated mountain counties of Greene, Highland, Bath and Craig.

Telephone communication facilities in Virginia have been greatly increased in rural areas since the 1945 census data were compiled. The industry is aggressively pressing forward on a program to extend and improve telephone service for sparsely settled areas. Specifically, one of the large telephone companies serving Virginia has a \$10,000,000 rural development program by which it expects within five years from January 1, 1946, to more than double the number of telephones that serve farm and rural families within its service areas.

**Chapter Two**  
**HEALTH SERVICE PERSONNEL**



### HEALTH SERVICE PERSONNEL

Scarcity of trained personnel still constitutes one of the larger problems of adequate hospital care and health service. In 1946, the general hospitals of the State were employing 9,183 persons. The following table describes the manner in which these employees were distributed according to hospital bed capacity. These figures do not include the practicing physicians associated with the general hospitals but do include employees of the house staff, interns and residents.

**TABLE XXXVIII**  
**EMPLOYEE/BED RATIO BY SIZE GROUPS**

| Group                       | No.<br>Hospitals | Beds-<br>Comps. | No.<br>Employees | Average<br>No. Emp.<br>Per Bed |
|-----------------------------|------------------|-----------------|------------------|--------------------------------|
| "A" (1-49) Beds.....        | 42               | 1,130           | 899              | 0.83                           |
| "B" (50-99) Beds.....       | 23               | 1,638           | 1,736            | 1.06                           |
| "C" (100-199) Beds.....     | 22               | 3,093           | 3,516            | 1.14                           |
| "D" (200-299) Beds.....     | 2                | 480             | 522              | 1.09                           |
| "E" (300.. ) Beds.....      | 3                | 1,531           | 2,510            | 1.64                           |
| Not reporting No. of Emp... | 4                | 462             | .....            | .....                          |

In the general hospitals, 51.5 per cent of the total per-patient-day expense was chargeable to salary and services. At the time this chapter is being written, no maximum salary scales for any of the personnel classifications have been reached, and it appears that wages and salaries are generally on the increase for months to come.

### PRACTICING PHYSICIANS IN THE STATE

Due to the war and resulting conditions, it was difficult to develop figures which would adequately show a comparison for the years 1947 and 1942. The table which follows is designed to show the number of practicing physicians by cities and counties for the years 1947 and 1942, together with the increase or decrease and population per physician.





TABLE XXXIX

PRACTICING PHYSICIANS BY COUNTIES AND CITIES 1947 AND 1942,  
SHOWING INCREASE OR DECREASE AND POPULATION  
PER PHYSICIAN<sup>1</sup>

| Counties and Cities       | No. of Physicians |       | 1947-42<br>Inc. or<br>Dec. | Pop. Per<br>Physician<br>1947 <sup>2</sup> |
|---------------------------|-------------------|-------|----------------------------|--------------------------------------------|
|                           | 1947              | 1942  |                            |                                            |
| <b>STATE</b> .....        | 2,683             | 2,300 | 683                        | 1,047                                      |
| Rural.....                | 971               |       |                            | 2,044                                      |
| Urban.....                | 1,712             |       |                            | 482                                        |
| City-Counties.....        | 2,559             |       |                            | 606                                        |
| <b>Counties</b>           |                   |       |                            |                                            |
| Accomac.....              | 18                | 19    | - 1                        | 1,591                                      |
| Albemarle <sup>3</sup>    |                   |       |                            |                                            |
| Inc. Charlottesville..... | 118               | 48    | 70                         | 355                                        |
| (Teaching Center)         |                   |       |                            |                                            |
| Exc. Charlottesville..... | 4                 | 7     | - 3                        | 5,356                                      |
| Alleghany                 |                   |       |                            |                                            |
| Inc. Clifton Forge.....   | 38                | 35    | 3                          | 686                                        |
| Exc. Clifton Forge.....   | 14                | 14    | 0                          | 1,862                                      |
| Amelia.....               | 5                 | 8     | - 3                        | 1,558                                      |
| Amherst.....              | 6                 | 8     | - 2                        | 3,088                                      |
| Amherst and Campbell      |                   |       |                            |                                            |
| Inc. Lynchburg.....       | 91                | 89    | 2                          | 926                                        |
| Exc. Lynchburg.....       | 19                | 18    | 1                          | 2,185                                      |
| Appomattox.....           | 5                 | 6     | - 1                        | 1,655                                      |
| Arlington                 |                   |       |                            |                                            |
| Inc. Alexandria.....      | 164               |       |                            | 1,961                                      |
| Augusta                   |                   |       |                            |                                            |
| Inc. Staunton.....        | 59                | 58    | 1                          | 954                                        |
| Exc. Staunton.....        | 29                | 34    | - 5                        | 1,411                                      |
| Bath.....                 | 7                 | 8     | - 1                        | 826                                        |
| Bedford.....              | 12                | 14    | - 2                        | 2,159                                      |
| Bland.....                | 2                 | 4     | - 2                        | 3,081                                      |
| Botetourt.....            | 6                 | 6     | 0                          | 2,258                                      |
| Brunswick.....            | 6                 | 5     | 1                          | 3,138                                      |
| Buchanan.....             | 18                | 14    | 4                          | 1,475                                      |
| Buckingham.....           | 6                 | 5     | 1                          | 1,876                                      |
| <b>Campbell</b>           |                   |       |                            |                                            |
| Inc. Lynchburg.....       | 85                | 81    | 4                          | 773                                        |
| Exc. Lynchburg.....       | 13                | 10    | 3                          | 1,769                                      |
| Caroline.....             | 8                 | 8     | 0                          | 1,459                                      |
| Carroll.....              | 7                 | 7     | 0                          | 3,158                                      |
| Charles City.....         | 3                 | 3     | 0                          | 1,454                                      |
| Charlotte.....            | 7                 | 4     | 3                          | 1,930                                      |

TABLE XXXIX—Continued

| Counties and Cities    | No. of Physicians |      | 1947-42<br>Inc. or<br>Dec. | Pop. Per<br>Physician<br>1947 <sup>2</sup> |
|------------------------|-------------------|------|----------------------------|--------------------------------------------|
|                        | 1947              | 1942 |                            |                                            |
| Chesterfield.....      | 5                 | 7    | - 2                        | 5,946                                      |
| Chesterfield & Henrico |                   |      |                            |                                            |
| Inc. Richmond.....     | 555               |      |                            | 513                                        |
| Exc. Richmond.....     | 9                 | 13   | - 4                        | 6,532                                      |
| Clarke.....            | 5                 | 6    | - 1                        | 1,331                                      |
| Craig.....             | 1                 | 3    | - 2                        | 3,214                                      |
| Culpeper.....          | 10                | 10   | 0                          | 1,216                                      |
| Cumberland.....        | 2                 | 2    | 0                          | 3,212                                      |
| Dickenson.....         | 5                 | 8    | - 3                        | 4,023                                      |
| Dinwiddie              |                   |      |                            |                                            |
| Inc. Petersburg.....   | 47                | 49   | - 2                        | 1,083                                      |
| Exc. Petersburg.....   | 3                 | 4    | - 1                        | 5,363                                      |
| Elizabeth City         |                   |      |                            |                                            |
| Inc. Hampton.....      | 21                |      |                            | 2,617                                      |
| Exc. Hampton.....      | 6                 | 5    | 1                          | 9,160                                      |
| Essex.....             | 6                 | 6    | 0                          | 1,086                                      |
| Fairfax.....           | 24                | 14   | 10                         | 2,283                                      |
| Fauquier.....          | 21                | 19   | 2                          | 929                                        |
| Floyd.....             | 4                 | 5    | - 1                        | 2,742                                      |
| Fluvanna.....          | 4                 | 4    | 0                          | 1,789                                      |
| Franklin.....          | 6                 | 7    | - 1                        | 3,722                                      |
| Frederick              |                   |      |                            |                                            |
| Inc. Winchester.....   | 31                | 30   | 1                          | 815                                        |
| Exc. Winchester.....   | 3                 | 4    | - 1                        | 4,660                                      |
| Giles.....             | 7                 | 7    | 0                          | 2,178                                      |
| Gloucester.....        | 8                 | 7    | 1                          | 1,231                                      |
| Goochland.....         | 5                 | 6    | - 1                        | 1,492                                      |
| Grayson.....           | 14                | 12   | 2                          | 1,262                                      |
| Greene.....            | 1                 | 2    | - 1                        | 4,650                                      |
| Greensville.....       | 8                 | 8    | 0                          | 1,750                                      |
| Halifax.....           | 16                | 12   | 4                          | 2,344                                      |
| Hanover.....           | 11                | 13   | - 2                        | 1,607                                      |
| Henrico                |                   |      |                            |                                            |
| Inc. Richmond.....     | 550               |      |                            | 466                                        |
| Exc. Richmond.....     | 4                 | 6    | - 2                        | 7,264                                      |
| Henry                  |                   |      |                            |                                            |
| Inc. Martinsville..... | 22                | 26   | - 4                        | 1,377                                      |
| Exc. Martinsville..... | 6                 | 8    | - 2                        | 4,590                                      |
| Highland.....          | 4                 | 5    | - 1                        | 1,049                                      |
| Isle of Wight.....     | 4                 | 5    | - 1                        | 3,325                                      |
| James City             |                   |      |                            |                                            |
| Inc. Williamsburg..... | 14                | 21   | - 7                        | 950                                        |
| Exc. Williamsburg..... | 3                 | 3    | 0                          |                                            |
| King and Queen.....    |                   | 2    | - 2                        | 6,019 (0)                                  |
| King George.....       |                   | 2    | - 2                        | 5,828 (0)                                  |

TABLE XXXIX—Continued

| Counties and Cities                                 | No. of Physicians |      | 1947-42<br>Inc. or<br>Dec. | Pop. Per<br>Physician<br>1947 <sup>1</sup> |
|-----------------------------------------------------|-------------------|------|----------------------------|--------------------------------------------|
|                                                     | 1947              | 1942 |                            |                                            |
| King William.....                                   | 4                 | 5    | - 1                        | 2,012                                      |
| Lancaster.....                                      | 5                 | 7    | - 2                        | 1,439                                      |
| Lee.....                                            | 14                | 18   | - 4                        | 2,375                                      |
| Loudoun.....                                        | 15                | 18   | - 3                        | 1,262                                      |
| Louisa.....                                         | 4                 | 4    | 0                          | 2,792                                      |
| Lunenburg.....                                      | 4                 | 4    | 0                          | 3,352                                      |
| Madison.....                                        | 4                 | 7    | - 3                        | 1,975                                      |
| Mathews.....                                        | 5                 | 5    | 0                          | 1,315                                      |
| Mecklenburg.....                                    | 18                | 19   | - 1                        | 1,618                                      |
| Middlesex.....                                      | 4                 | 3    | 1                          | 1,528                                      |
| Montgomery.....                                     | 27                | 31   | - 4                        | 1,246                                      |
| Nansemond                                           |                   |      |                            |                                            |
| Inc. Suffolk.....                                   | 22                | 23   | - 1                        | 138                                        |
| Exc. Suffolk.....                                   | 3                 | 2    | 1                          | 7,138                                      |
| Nelson.....                                         | 7                 | 8    | - 1                        | 2,019                                      |
| New Kent.....                                       | 2                 | 3    | - 1                        | 1,829                                      |
| Norfolk                                             |                   |      |                            |                                            |
| Inc. Norfolk, South Norfolk,<br>and Portsmouth..... | 304               |      |                            | 1,112                                      |
| Exc. Norfolk, South Norfolk,<br>and Portsmouth..... | 3                 |      |                            | 36,834                                     |
| Northampton.....                                    | 15                | 8    | 7                          | 1,128                                      |
| Northumberland.....                                 | 9                 | 8    | 1                          | 967                                        |
| Nottoway.....                                       | 15                | 14   | 1                          | 1,136                                      |
| Orange.....                                         | 7                 | 11   | - 4                        | 1,686                                      |
| Page.....                                           | 9                 | 8    | 1                          | 1,523                                      |
| Patrick.....                                        | 5                 | 5    | 0                          | 2,620                                      |
| Pittsylvania                                        |                   |      |                            |                                            |
| Inc. Danville.....                                  | 60                | 52   | 8                          | 1,506                                      |
| Exc. Danville.....                                  | 12                | 10   | 2                          | 4,822                                      |
| Powhatan.....                                       | 1                 | 3    | - 2                        | 5,491                                      |
| Prince Edward.....                                  | 10                | 10   | 0                          | 1,328                                      |
| Prince George.....                                  | 13                | 12   | 1                          | 1,506                                      |
| Prince William.....                                 | 8                 | 8    | 0                          | 1,958                                      |
| Princess Anne.....                                  | 13                | 13   | 0                          | 2,020                                      |
| Pulaski.....                                        | 19                | 18   | 1                          | 1,265                                      |
| Rappahannock.....                                   | 5                 | 4    | 1                          | 1,247                                      |
| Richmond.....                                       | 4                 | 3    | 1                          | 1,465                                      |
| Roanoke                                             |                   |      |                            |                                            |
| Roanoke included.....                               | 176               | 167  | 9                          | 608                                        |
| Roanoke excluded.....                               | 14                | 19   | - 5                        | 2,945                                      |
| Rockbridge.....                                     | 24                | 21   | 3                          | 1,008                                      |
| Rockingham                                          |                   |      |                            |                                            |
| Inc. Harrisonburg.....                              | 33                | 36   | - 3                        | 1,177                                      |
| Exc. Harrisonburg.....                              | 14                | 13   | 1                          | .....                                      |
| Russell.....                                        | 12                | 10   | 2                          | 1,999                                      |



TABLE XXXIX—Continued

| Counties and Cities                                                              | No. of Physicians |      | 1947-42<br>Inc. or<br>Dec. | Pop. Per<br>Physician<br>1947 <sup>2</sup> |
|----------------------------------------------------------------------------------|-------------------|------|----------------------------|--------------------------------------------|
|                                                                                  | 1947              | 1942 |                            |                                            |
| Scott.....                                                                       | 11                | 12   | - 1                        | 2,351                                      |
| Shenandoah.....                                                                  | 19                | 18   | 1                          | 1,042                                      |
| Smyth.....                                                                       | 27                | 25   | 2                          | 1,020                                      |
| Southampton.....                                                                 | 21                | 16   | 5                          | 1,183                                      |
| Spotsylvania.....                                                                | 1                 | 2    | - 1                        | 8,957                                      |
| Spotsylvania, Stafford, King<br>George, and Caroline<br>inc. Fredericksburg..... | 45                | 34   | 11                         | 1,067                                      |
| Exc. Fredericksburg.....                                                         | 24                | 15   | 9                          | 1,472                                      |
| Stafford.....                                                                    | 2                 | 3    | - 1                        | 4,428                                      |
| Surry.....                                                                       | 2                 | 2    | 0                          | 2,659                                      |
| Sussex.....                                                                      | 13                | 9    | 4                          | 922                                        |
| Tazewell.....                                                                    | 36                | 32   | 5                          | 1,182                                      |
| Warren.....                                                                      | 12                | 11   | 1                          | 968                                        |
| Warwick                                                                          |                   |      |                            |                                            |
| Inc. Newport News.....                                                           | 86                |      |                            | 902                                        |
| Exc. Newport News.....                                                           | 6                 | 2    | 4                          | 5,658                                      |
| Washington                                                                       |                   |      |                            |                                            |
| Inc. Bristol.....                                                                | 38                | 35   | 3                          | 1,246                                      |
| Exc. Bristol.....                                                                | 20                | 19   | 1                          | 1,652                                      |
| Westmoreland.....                                                                | 8                 | 5    | 3                          | 1,108                                      |
| Wise.....                                                                        | 39                | 35   | 4                          | 1,260                                      |
| Wythe.....                                                                       | 20                | 20   | 0                          | 1,069                                      |
| York.....                                                                        | 4                 | 3    | 1                          | 2,677                                      |
| <b>Cities</b>                                                                    |                   |      |                            |                                            |
| Arlington.....                                                                   | 91                |      |                            | 1,234                                      |
| Alexandria.....                                                                  | 73                |      |                            | 587                                        |
| Bristol.....                                                                     | 18                | 16   | 2                          | 796                                        |
| Charlottesville.....                                                             | 114               | 41   |                            | 179                                        |
| Clifton Forge.....                                                               | 24                | 21   | 3                          |                                            |
| Danville.....                                                                    | 48                | 42   | 6                          | 677                                        |
| Fredericksburg.....                                                              | 21                | 19   | 2                          | 604                                        |
| Hampton.....                                                                     | 15                |      |                            |                                            |
| Lynchburg.....                                                                   | 72                | 71   | 1                          | 593                                        |
| Martinsville.....                                                                | 22                | 18   | 4                          | 501                                        |
| Newport News.....                                                                | 80                |      |                            | 546                                        |
| Norfolk.....                                                                     | 236               |      |                            | 712                                        |
| Petersburg.....                                                                  | 44                | 45   | - 1                        | 791                                        |
| Portsmouth.....                                                                  | 65                |      |                            | 915                                        |
| Roanoke.....                                                                     | 162               | 148  | 14                         | 406                                        |

TABLE XXXIX—Continued

| Counties and Cities | No. of Physicians |       | 1947-42<br>Inc. or<br>Dec. | Pop. Per<br>Physician<br>1947 <sup>2</sup> |
|---------------------|-------------------|-------|----------------------------|--------------------------------------------|
|                     | 1947              | 1942  |                            |                                            |
| Suffolk.....        | 22                | 21    | 1                          | 590                                        |
| Staunton.....       | 30                | 24    | 6                          | 512                                        |
| Winchester.....     | 29                | 26    | 3                          | 417                                        |
| Richmond.....       | 546               | ..... | .....                      | 414                                        |

**SOURCE:**

<sup>1</sup> 1947 figures based on list furnished by Fisher-Stevens Professional Workers Service, New York, supplemented by list of State Department of Health. Retired doctors, staffs of Mental and T. B. Hospitals, and Public Health Workers are excluded. Staffs of teaching hospitals included. (Numbers are approximate, probably slight errors.)

<sup>2</sup> 1947 ratios based on 1945 population as estimated by Census Bureau.

<sup>3</sup> The people of many counties are served by doctors in adjacent cities. The doctor population ratio of such counties is, therefore, calculated in connection with their city centers. Specialists in city medical training hospitals serve large areas, so there was no way of properly allocating their services. They were, therefore, allocated to their local areas.

**SUMMARY:**

Population physician ratio 1947: **Under 1,500**—18 counties including city centers; **1,500-1,999**—21 counties including 3 city centers; **2,000-2,499**—11 counties; **2,500-3,499**—12 counties; **3,500 up**—19 counties. (However, 17 of these counties have cities. When their doctors are included, the ratio drops to less than 1 doctor to 1,000 of the combined population. Two counties, each with over 5,000 population, have no doctors.)

### GRADUATE NURSES

It was impossible to develop a table which would show the overall distribution of the graduate nurses by residences in the State of Virginia. It is a generally accepted fact that all hospitals are suffering an acute shortage of nursing personnel, largely attributed to a higher scale of pay in other industries, and to the fact that many of the schools of nursing have been unable to enroll their full complement of nurses.

It is necessary to have a training program for an adequate number of properly qualified nurses to meet the demands of the hospitals and the public. The training program must also endeavor to elevate rather than lower standards of professional care. The trend in nurse education is moving gradually toward a higher and higher standard of education, which requires more of the students' time, broader clinical experience, better instructions, and closer supervision. Clinical experience must, among other things, include psychiatry, tuberculosis, and public health nursing.

In recent years two types of nursing education have been developed: Training of the professional nurse; Training of the non-professional nurse. It is possible that the non-professional training will consist of a course of from 12-18 months which will prepare the trainee for nursing the convalescent, the chronic, and the less acutely ill patient. The non-professional nurse will have her work supervised by the professional nurse whose education will be strengthened and extended for field positions or nurse educator, teacher, and supervisor. Should this experiment prove successful, the smaller schools of nursing may find it more profitable and expedient to adopt the non-professional nurse program and give up their courses for professional nurses.

## **Chapter Three**

### **THE EXISTING HOSPITALS OF VIRGINIA**





TABLE XL

GENERAL AND ALLIED SPECIAL HOSPITALS  
SHOWING PERCENT PATIENTS FROM LOCAL COMMUNITY (CITY AND COUNTY),  
AVERAGE PATIENT STAY AND PERCENT OCCUPANCY  
STATEWIDE AVERAGES: PATIENT STAY—8.4 DAYS  
(DESIGNED CAP.) PER CENT OCCUPANCY—76.11%

A—ALLIED SPECIAL  
G—GENERAL

| Region and Area | Name of Hospital                           | Classification | % Patients<br>(Local) | Average<br>Patients<br>Stay | %<br>Occupancy |
|-----------------|--------------------------------------------|----------------|-----------------------|-----------------------------|----------------|
| Norfolk         |                                            |                |                       |                             |                |
| B-1             | DePaul Hospital.....                       | G              | 82                    | 8.8                         | 87             |
| B-1             | Maryview Hospital.....                     | G              | 97                    | 5.4                         | 30             |
| B-1             | Norfolk Community Hospital.....            | G              | 94                    | 8.4                         | 46             |
| B-1             | Norfolk General Hospital.....              | G              | 88                    | 9.5                         | 79             |
| B-1             | King's Daughters' Hospital.....            | G              | 99                    | 8.5                         | 67             |
| B-1             | Leigh Memorial Hospital.....               | G (City)       | 74                    | 8.0                         | 66             |
| B-1             | Mc-Coy-Stokes Hospital.....                | A              | 85                    | 4.3                         | 58             |
| I-1             | Lakeview Hospital.....                     | G              | 45                    | 10.3                        | 105.6          |
| I-1             | Virginia General Hospital.....             | G              | NR                    | 3.7                         | 32             |
| I-1             | Suffolk Community Hospital.....            | G              | 78                    | 16.9                        | 25             |
| I-2             | Dixie Hospital.....                        | G              | 84                    | 7.7                         | 55             |
| I-2             | Elizabeth Buxton Hospital.....             | G              | NR                    | 7.2                         | 104.8          |
| I-2             | Riverside Hospital.....                    | G              | 78                    | 7.0                         | 51.7           |
| I-2             | Whittaker Memorial Hospital.....           | G              | 92                    | 8.6                         | 65             |
| R-1             | Raiford Memorial Hospital.....             | G              | 74                    | 8.0                         | 77.7           |
| R-5             | Northampton-Accomac Memorial Hospital..... | G              | 96                    | 8.7                         | 80             |
| Richmond        |                                            |                |                       |                             |                |
| B-2             | Grace Hospital.....                        | G              | 85                    | 6.5                         | 91             |
| B-2             | Johnston-Willis Hospital.....              | G              | NR                    | 7.7                         | 98.5           |
| B-2             | Medical College of Virginia Hospital.....  | G              | 58                    | 14.5                        | 87             |
| B-2             | Retreat For The Sick.....                  | G              | NR                    | 7.3                         | 88.7           |

TABLE XI—Continued

| Region and Area          | Name of Hospital                              | Classification | % Patients (Local) | Average Patients Stay | % Occupancy |
|--------------------------|-----------------------------------------------|----------------|--------------------|-----------------------|-------------|
| <b>Richmond—Cont.</b>    |                                               |                |                    |                       |             |
| B-2                      | Richmond Community Hospital.....              | G (City)       | 58                 | 9.8                   | 103.7       |
| B-2                      | St. Elizabeth's Hospital.....                 | G (City)       | 37                 | 9.3                   | 106         |
| B-2                      | St. Luke's Hospital.....                      | G (City)       | 72                 | 9.0                   | 100         |
| B-2                      | Sheltering Arms Hospital.....                 | G              | 74                 | 13.3                  | 52          |
| B-2                      | Stuart Circle Hospital.....                   | G              | NR                 | 9.7                   | 101.7       |
| I-3                      | Crippled Children's Hospital.....             | A              | 20                 | 121.0                 | 73.7        |
| I-3                      | John Randolph Hospital.....                   | G              | NR                 | 6.4                   | 85          |
| I-3                      | Petersburg Hospital.....                      | G              | 63                 | 5.9                   | 111         |
| I-9                      | Southside Community Hospital.....             | G              | 32                 | 9.0                   | 89          |
| R-2                      | Bell Hospital.....                            | G              | 73                 | 6.7                   | 43.6        |
| <b>Northern Virginia</b> |                                               |                |                    |                       |             |
| I-5                      | Alexandria Hospital.....                      | G              | 89                 | 8.2                   | 85.6        |
| I-5                      | Arlington Hospital.....                       | G              | 67                 | 7.1                   | 85          |
| I-5                      | Circle Terrace Hospital.....                  | A              | NR                 |                       |             |
| I-6                      | Front Royal Community Hospital.....           | G              | 82                 | 4.2                   | 73          |
| I-6                      | Winchester Memorial Hospital.....             | G              | 70                 | 9.3                   | 95          |
| R-7                      | Physicians' Hospital, Inc.....                | G              | 61                 | 9.4                   | 57          |
| R-8                      | Loudoun County Hospital.....                  | G              | 93                 | 6.4                   | 60          |
| <b>Charlottesville</b>   |                                               |                |                    |                       |             |
| B-4                      | Gordonsville Community Hospital.....          | G              | 94                 | 11.0                  | 65          |
| B-4                      | Louisa Hospital.....                          | G              | 96                 | 4.7<br>(3 Mos.)       | 35.7        |
| B-4                      | Martha Jefferson Hospital and Sanatorium..... | G              | 76                 | 5.9                   | 93          |
| B-4                      | University of Virginia Hospital.....          | G              | 37                 | 12.0                  | 80          |
| I-4                      | Mary Washington Hospital.....                 | G              | 56                 | 6.7                   | 73          |
| I-7                      | Rockingham Memorial Hospital.....             | G              | 70                 | 7.6                   | 99.8        |

TABLE XL—Continued

| Region and Area               | Name of Hospital                         | Classification | % Patients<br>(Local) | Average<br>Patients<br>Stay | %<br>Occupancy |
|-------------------------------|------------------------------------------|----------------|-----------------------|-----------------------------|----------------|
| Charlottesville—<br>Continued | King's Daughters' Hospital.....          | G              | 87                    | 8.2                         | 73             |
|                               | Waynesboro Community Hospital.....       | G              | 89                    | 6.7                         | 57             |
|                               | Bedford General Hospital.....            | G              | 82                    | 10.0<br>(Est.)              | 51             |
|                               | John Russell Hospital.....               | G              | NR                    | 6.9                         | 70             |
|                               | Lynchburg General Hospital.....          | G              | 76                    | 8.2                         | 73.6           |
|                               | Marshall Lodge Memorial Hospital.....    | G              | NR                    | 8.9                         | 58             |
|                               | Piedmont General Hospital.....           | G              | 75                    | 6.3                         | 55.5           |
|                               | Virginia Baptist Hospital.....           | G              | 64                    | 8.6                         | 85             |
|                               | Cora Miller Memorial Hospital.....       | G              | 96                    | 8.1                         | 56.3           |
|                               | Page Memorial Hospital.....              | G              | 93                    | 4.1                         | 61             |
| Danville                      | Danville Community Hospital.....         | G              | NR                    | 7.7                         | 79             |
|                               | Memorial Hospital.....                   | G              | 85                    | 7.1                         | 88             |
|                               | Winslow Hospital.....                    | G              | 85                    | 6.6                         | 54             |
|                               | South Boston Hospital.....               | G              | NR                    | 4.9                         | 69.8           |
| Roanoke                       | The Burrell Memorial Hospital, Assn..... | G              | 88                    | 9.4                         | 78.7           |
|                               | Jefferson Hospital.....                  | G              | 59                    | 9.2                         | 121            |
|                               | Lewis-Gale Hospital.....                 | G              | 59                    | 8.9                         | 94             |
|                               | Roanoke Hospital.....                    | G              | 57                    | 9.5                         | 88             |
|                               | Shenandoah Hospital.....                 | G              | 90                    | 6.1                         | 85             |
|                               | Gill Memorial EENT Hospital.....         | A (City)       | 50                    | 2.5                         | 58             |



TABLE XL—Continued

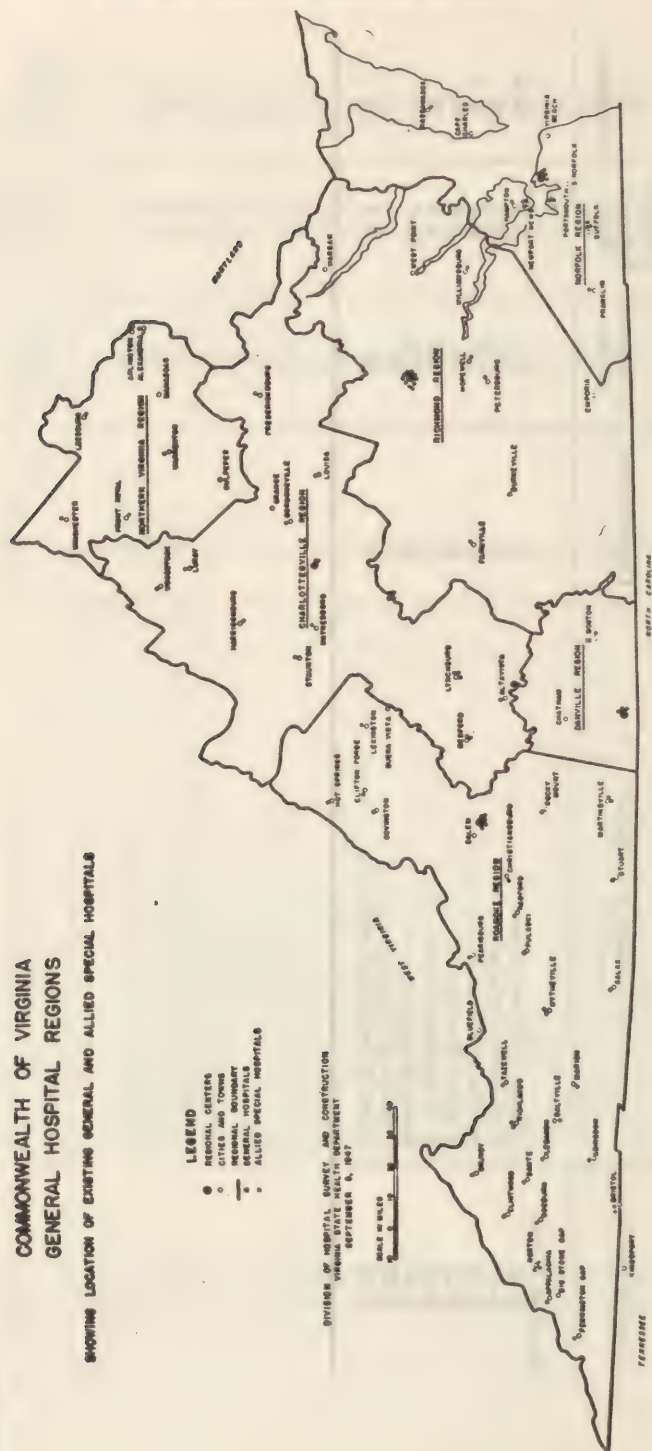
| Region and Area | Name of Hospital                         | Classification | % Patients<br>(Local) | Average<br>Patients<br>Stay | %<br>Occupancy |
|-----------------|------------------------------------------|----------------|-----------------------|-----------------------------|----------------|
| Roanoke—Cont.   |                                          |                |                       |                             |                |
| I-12            | Martinsville General Hospital.....       | G              | NR                    | 8.5                         | .....          |
| I-12            | St. Mary's Hospital.....                 | G              | 86                    | 8.6                         | 120            |
| I-13            | Alleghany Memorial Hospital.....         | G              | 79                    | 8.0                         | 69             |
| I-13            | Chesapeake and Ohio R. R. Hospital.....  | G              | 64                    | 4.7                         | 88.8           |
| I-14            | New Altamont Hospital.....               | G              | 78                    | 6.0                         | 81             |
| I-14            | Radford Community Hospital.....          | G              | 74                    | 10.5                        | 88             |
| I-15            | Johnston Memorial Hospital.....          | G              | 57                    | 5.9                         | 108            |
| I-15            | King's Mountain Memorial Hospital.....   | G              | 87                    | 7.0                         | 97.5           |
| I-15            | Grigsby's Hospital.....                  | A              | 100                   | 8.5                         | 56.6           |
| R-10            | Community House Hospital.....            | G              | 92                    | 7.1                         | 41             |
| R-10            | Stonewall Jackson Memorial Hospital..... | G              | NR                    | 6.1                         | 71.5           |
| R-12            | Clinch Valley Clinic Hospital.....       | G              | 67                    | 4.3                         | 89             |
| R-12            | Dickenson County Hospital.....           | G              | 95                    | .....                       | 40             |
| R-12            | Jeffersonville Hospital.....             | G              | NR                    | .....                       | .....          |
| R-12            | Mattie Williams Hospital.....            | G              | 64                    | 9.5                         | 92             |
| R-12            | Grundy Hospital.....                     | G              | .....                 | .....                       | .....          |
| R-13            | Appalachia General Hospital.....         | G              | 95                    | 6.4                         | 46             |
| R-13            | Lee General Hospital.....                | G              | NR                    | 5.3                         | 63             |
| R-13            | Coeburn Hospital.....                    | G              | NR                    | 7.0                         | 94             |
| R-13            | Norton Clinic.....                       | G              | 88                    | 5.5                         | 44             |
| R-13            | Norton General Hospital.....             | G              | 81                    | 7.0                         | 82             |
| R-13            | Dr. Botts' EENT Hospital.....            | A              | NR                    | 1.2                         | 29             |
| R-14            | St. Elizabeth's Hospital.....            | G              | 76                    | 6.9                         | 100            |
| R-17            | Lee Memorial Hospital.....               | G              | NR                    | 8.0                         | 81             |
| R-17            | Mathieson Hospital.....                  | G              | NR                    | 6.3                         | 66.5           |

TABLE XL—Continued

| Region and Area | Name of Hospital              | Classification | % Patients<br>(Local) | Average<br>Patients<br>Stay | %<br>Occupancy |
|-----------------|-------------------------------|----------------|-----------------------|-----------------------------|----------------|
| Roanoke—Cont.   |                               |                |                       |                             |                |
| R-18            | Chitwood-Moore Clinic.....    | G              | 87                    | 3.8                         | 32.5           |
| R-18            | Wytheville Hospital.....      | G              | 86                    | 6.5                         | 48             |
| R-19            | Pulaski Hospital.....         | G              | NR                    | 8.2                         | 85.6           |
| R-20            | Waddell Hospital.....         | G              | 58                    | 5.9                         | 38             |
| R-23            | E. C. Jamison Clinic.....     | G              | NR                    | 4.5                         | 30             |
| R-24            | Stuart Hospital.....          | G              | NR                    | 10.0                        | 54             |
| R-26            | Clinchfield Hospital.....     | G              | 71                    | .....                       | .....          |
| R-26            | Lebanon General Hospital..... | G              | 95                    | 6.2                         | 59             |

# COMMONWEALTH OF VIRGINIA GENERAL HOSPITAL REGIONS

SHOWING LOCATION OF EXISTING GENERAL AND ALLIED SPECIAL HOSPITALS



## THE EXISTING HOSPITALS OF VIRGINIA

An attempt to adequately describe the activities of each existing hospital in the state would require more space than can be assigned in this report. In the brief description that follows, the hospitals will be described by areas of the region in which they exist. The description of the Mental Hospitals, Tuberculosis Sanatoria, Public Health Centers and Chronic Disease Hospitals will follow. The state has been divided into six hospital regions, each region possessing a center at which the specialized services are or will be available to meet the estimated needs of the population.

### BASE AREA NO. I - SEE B-1 REGIONAL MAP:

#### De Paul Hospital:

Kinsley Lane and Granby Street, Norfolk, Virginia - Sister Louise Driscoll, R. N., B. S., Administrator. This hospital, established by the Sisters of Charity of Emmitsburg, Maryland, was first opened in 1856 and has been expanded at intervals since that time. An outpatient clinic was added in 1915, and a new hospital was constructed on the present site in 1944 with funds provided by the Lanham Act.

This hospital, situated in suburban Norfolk, is presently operating 255 beds. During 1946, the hospital operated at 87 per cent occupancy. Negro patients are admitted, and there are 40 beds assigned for their care.

The hospital is approved for residency training in medicine, surgery, obstetrics and gynecology. Residencies in radiology and pathology were pending at the time of the Survey. There were six interns and two residents on the house staff.

The School of Nursing, as of December 31, 1946, had a total enrollment of 94 students. It is approved by the Virginia State Board of Nurse Examiners, and is affiliated for special clinical services, such as psychiatry, with the Seton Institute, Baltimore, Maryland.

The medical staff of the institution is from the local profession and is representative of the specialties.

#### King's Daughters' Hospital - See B-1 Regional Map:

Ft. Lane and Leckie Streets, Portsmouth, Virginia - Mr. Bruce Lloyd Clark, Administrator. This non-profit general hospital was established by the Trinity Circle of King's Daughters in 1897. The hospital has expanded in size several times during its history, most recently in 1944, when under the Lanham Act 100 beds plus 26 bassinets were added, bringing its total bed capacity to 195. For the calendar year 1946, the hospital reported a 67 per cent occupancy. Negroes are admitted, and there are 42 beds assigned for this purpose.



The Nursing School of the hospital is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. As of the date of the survey, a total of 51 students were enrolled. The school maintains an affiliation in pediatrics with the Medical College of Virginia in Richmond, and steps are under way to establish a three months' psychiatric affiliation early in 1948. Basic science instruction is provided by the College of William and Mary, Norfolk Division. Privileges of practice are open to qualified physicians, and the staff is from the local profession. The institution provides no organized out-patient department but maintains adequate emergency room services.

**Leigh Memorial Hospital, Inc. - See B-1 Regional Map:**

Mowbray Arch, Norfolk, Virginia - Mr. Sam E. Patterson, Managing Director. This institution, founded in 1901 by Dr. Southgate Leigh, is now operated by a non-profit corporation. Since its opening, two major additions have been erected, most recently in 1942 of 52 beds and 34 bassinets. The hospital is now operating 165 beds with a reported 66 per cent occupancy. No Negro patients are admitted.

The institution operates a School for Practical Nurses, which is approved by the Virginia State Board of Nurse Examiners, but no enrollment figure was given in this report.

No organized out-patient department is maintained, but services for private ambulatory patients are provided.

**McCoy-Stokes Hospital - See B-1 Regional Map:**

1400 Colonial Avenue, Norfolk, Virginia - Miss Louise Poe, R. N., Superintendent. This institution opened in 1934, and is operated as a partnership by Drs. P. B. Stokes and C. M. McCoy.

Eye, Ear, Nose and Throat constitute its primary services, and there are 10 beds now operated for this purpose. A 58 per cent occupancy was reported for the calendar year 1946.

Drs. Stokes and McCoy constitute the medical staff and maintain offices within the hospital building.

**Maryview Hospital - See B-1 Regional Map:**

Western Branch Boulevard, Portsmouth, Virginia - Mother Marie, R. N., Administrator. This community general hospital was opened in 1945. It was constructed with Lanham Act funds. The institution is operated by a non-profit corporation which holds the property under Federal Government lease.

The building is designed to accommodate 155 beds, including 26 beds for Negro patients.

The hospital is approved for residencies by the American Medical Association. The medical staff membership is from the local profession, and privileges of practice are available upon recommendation of senior staff members.

Facilities have been provided for an out-patient department, but as of December 31, 1946, this department had not been put in operation.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and maintains affiliations in pediatrics, psychiatry and out-patient department service with the University of Virginia Hospital. Thirty-four students were enrolled as of the date of this report.

The hospital is situated in suburban Portsmouth and is not altogether accessible to the medical profession. This situation in part accounts for the estimated 28 per cent rate of occupancy reported for the calendar year 1946. The management of the hospital is fully competent and is aware of this situation, and steps to improve the low per cent of occupancy are under way.

#### **Norfolk Community Hospital - See B-1 Regional Map:**

2539 Corprew Avenue, Norfolk, Virginia - Mr. W. T. Mason, Superintendent. This institution, opened in 1915, is owned and operated by the Norfolk Community Hospital Association, a non-profit corporation. It was first operated as the Drake Memorial Hospital, and in 1932 merged its interests with the Norfolk Community Hospital Association and assumed its present name.

Major additions were constructed in 1939 and 1943, until at the present time, the hospital is designed to operate 143 beds, all being reserved for Negro patients.

The institution, although operating with only 46 per cent occupancy, is providing a laudable service to the Negro race. Beset with financial difficulties from the start, much success is anticipated under its present capable administration.

The hospital operates no nursing school; and, therefore, must rely primarily on the Nursing Schools in Hampton and Richmond and those out of state for their graduate nurse personnel.

The hospital has an organized out-patient department. A qualified physician is in charge, and clinics in the major specialties are held according to schedules.

#### **Norfolk General Hospital - See B-1 Regional Map:**

Raleigh and Colley Avenue, Norfolk, Virginia - Mr. Willard P. Earngey, Jr., Superintendent. The Norfolk General Hospital, the largest of the general hospitals in Norfolk, opened in 1888 as The

Retreat for the Sick, is now operated by the Board of Directors, Norfolk General Hospital, Inc., a non-profit association.

Major construction in the form of additions have occurred over the past five years, and the present hospital is now designed to operate 320 beds. Of the 320 beds, 50 are designed to accommodate Negro patients. The recent construction is most modern. Of the patients treated, 80.40 per cent are from the City of Norfolk and South Norfolk, and 79 per cent occupancy is now maintained.

Residency training in medicine, surgery, and pathology is approved by the American Medical Association, and approvals in other specialties are pending. There are 10 interns and 8 residents comprising the house staff. The medical staff numbers 162, and of this number, 34 hold National Board Certification.

The Virginia State Board of Nurse Examiners approves the School of Nursing operated in the hospital, and an average of 65 students are enrolled. No affiliations for the basic medical services are maintained with other hospitals; however, basic science instruction is provided by the College of William and Mary, Norfolk Division. Approved courses for laboratory and x-ray technicians are also maintained.

The hospital has an organized out-patient department with regularly scheduled clinic sessions with varied types of service available.

#### INTERMEDIATE AREA NO. I—SEE I-1 REGIONAL MAP:

##### **Lakeview Hospital:**

191 Bosley Avenue, Suffolk, Virginia - Mr. W. C. Bloxom, Administrator. This institution, opened in 1906 by Drs. J. E. Rawls and E. R. Hart, has in recent years undergone a reorganization and is now operated as a non-profit association. It has a designed capacity of 56 beds, including 16 beds for Negro patients. Because of increased population of the area, the hospital is now operating 62 beds at a 100.6 per cent occupancy.

The major portion of the hospital is of frame construction; and although largely outmoded because of age, the hospital provides competent services and has capable administration.

The institution is not approved for residency training but has a School of Nursing re-opened during the war. Nineteen students are enrolled and affiliation in pediatrics is maintained with the Medical College of Virginia Hospital in Richmond.

An out-patient department, organized and operated on the principle of group practice, is connected with the institution. The medical staff of the hospital is composed of members of the group, and at the present time the hospital staff is closed.



**Suffolk Community Hospital - See I-1 Regional Map:**

317 Madison Avenue, Suffolk, Virginia - Mr. E. D. Howe, Administrator. This institution, opened in 1943, is operated as a non-profit association. Its services are restricted to Negro patients.

The hospital is operated in a converted residence of frame construction and is designed for 64 beds, including 25 beds reserved for tuberculosis patients.

The hospital has not been in operation a sufficient time to accurately foresee its future. The estimated rate of 25 per cent occupancy for 1946 must be increased materially if the hospital is to succeed financially without heavy subsidization.

The medical staff is open to qualified Negro physicians and members of the staff are chosen by nomination and election.

**Virginia Hospital: - See I-1 Regional Map:**

123 Clay Street, Suffolk, Virginia. This institution was opened in 1917 and is operated as a corporation. It reports a capacity of 15 beds and 32 per cent occupancy for 1946.

The medical staff is closed and is composed of physicians who have an interest in the corporation.

**INTERMEDIATE AREA NO. 2—SEE I-2  
REGIONAL MAP:****Elizabeth Buxton Hospital:**

Boulevard, Newport News, Virginia - Dr. Russell Buxton, Surgeon in Charge. This institution was opened in 1906 by Dr. Joseph T. Buxton and is now owned and operated by his son, Dr. Russell Buxton.

It is an institution of 125 beds, Negro patients being admitted, and it is presently operating at 104.8 per cent occupancy.

The medical staff is closed. The School of Nursing is approved by the Virginia State Board of Nurse Examiners, and from 10 to 12 students are graduated each year. Seventy-three students were enrolled at the time the survey was made. No affiliations for basic services are maintained with other hospitals; however, chemistry is taught the student nurses in a local high school.

The out-patient functions of the hospital are not organized, but a private clinic is maintained as individual doctors occupy offices in the hospital building.

**Dixie Hospital - See I-2 Regional Map:**

530 E. Queen Street, Hampton, Virginia - Mr. George B. Colonna, President. This institution was first opened in 1892 and is operated as a non-profit association. Since its organization, two major build-



ing programs have been consummated, the first in 1912, when a 55-bed addition was constructed; and in 1942, with Lanham Act funds, 65 additional beds were constructed. The hospital is now designed to operate a total of 142 general hospital beds, including 35 for Negro patients.

During 1946 the hospital operated at 55 per cent occupancy.

The medical staff is composed of the local profession and numbers approximately 70 physicians, 3 of whom hold National Board Certification.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and is accredited by the National League of Nursing Education. A total of 80 students are now enrolled, and an affiliation in pediatrics is maintained with the St. Philip Hospital School of Nursing in Richmond. This school is confined to the training of Negro nurses.

An organized out-patient department is maintained, and scheduled clinic sessions are held.

#### **Riverside Hospital - See I-2 Regional Map:**

245 50th Street, Newport News, Virginia - Mr. Eldon L. Roberts, Director. This hospital has been expanded on several occasions since its opening in 1921 and is now designed to operate 200 beds, including 18 beds reserved for the treatment of Negro patients.

It is approved for residency training in obstetrics and gynecology. There are four residents on the house staff. The medical staff is closed, and the term of staff membership is indefinite.

In the School of Nursing, there are 30 students enrolled. The school is approved by the Virginia State Board of Nurse Examiners and maintains an affiliation in pediatrics with the Children's Hospital of Washington, D. C. Chemistry is taught by faculty members from the local high school.

The hospital operated at a 51.7 per cent rate of occupancy during 1946. This low rate of occupancy is largely attributable to the lack of personnel available. Because of these personnel difficulties, the hospital has not at all times been able to operate its full facilities.

#### **Whittaker Memorial Hospital - See I-2 Regional Map:**

28th and Orcutt Avenue, Newport News, Virginia - Dr. E. Stanley Grannum, Administrator. This institution, owned by the City of Newport News and operated by the Whittaker Memorial Hospital Association, was opened in 1915. It is for the exclusive care of Negro patients.

The hospital has a designed capacity of 50 beds and in 1946 reported a 65 per cent rate of occupancy.

The medical staff is open and membership is based on recommendation of the Credentials Committee of the Medical Staff. There are

at present 52 members. The Hospital has no School of Nursing; and, therefore, must rely on outside sources for graduate nurse personnel.

Regrettably, there is no out-patient department maintained at the hospital. This area generally needs out-patient facilities.

#### **RURAL AREA NO. I—SEE B-1 REGIONAL MAP:**

##### **Raiford Memorial Hospital:**

201 Main Street, Franklin, Virginia, Mr. J. L. Lennon, Assistant Administrator. This institution, founded by Dr. R. L. Raiford and opened in 1928, is now operated by the Raiford Memorial Hospital Corporation. Opened with 5 beds, it has gradually expanded its capacity to 51 beds, including 12 assigned for the care of Negro patients.

The medical staff is divided into two classifications; namely, Clinic Staff and Courtesy Staff. The Clinic Staff is operated as a department of the hospital and is organized on the principle of group practice. The Courtesy Staff is composed primarily of general practitioners of the area served by the hospital. Qualified Negro physicians in the area also have privileges of practice.

The hospital is not approved for internship; but through a regional hospital plan, consultive services and rotating internship are provided through the Medical College of Virginia Hospital Division.

The hospital does not operate a School of Nursing; and, therefore, must rely on other sources for this type of personnel.

Functions of the out-patient department are carried on by members of the Clinic Staff, who have attained their training in the various medical specialties.

#### **RURAL AREA NO. 5—SEE R-5 REGIONAL MAP:**

##### **Northampton-Accomac Memorial Hospital:**

Nassawadox, Virginia - Miss Mae Lankford Hamner, R. N., Superintendent. This institution, situated on the eastern shore of Virginia, is the only hospital serving this particular area of the state. It first opened in 1927; and in 1944, with financial assistance from the Lanham Act, 23 additional beds were added, bringing the designed bed capacity to 71. The medical staff of the hospital is composed of members of the profession of the two counties.

The hospital is not approved for residency or intern training but is a member hospital of a regional plan with the Medical College of Virginia Hospital Division, which provides consultive medical service and rotating internships.

The School of Nursing of the hospital is approved by the Virginia State Board of Nurse Examiners and maintains an affiliation in





**Norfolk Region—continued**

pediatrics with the Medical College of Virginia. There is an average enrollment of 11 students.

The functions of the out-patient department are not organized, but services for ambulatory patients are available to both free and private patients, as a number of the staff members maintain their offices in the hospital building.

**BASE AREA NO. 2—SEE B-2 REGIONAL MAP:****Grace Hospital:**

401 West Grace Street, Richmond, Virginia - Robert F. Thomas, Managing Director. The Henry Franklin Hospital Corporation, trading as Grace Hospital, was opened in 1912. It has a designed capacity of 90 beds. Only white patients are admitted. During 1946, the hospital's rate of occupancy was 91 per cent.

The Medical staff of the hospital is organized and appointments for staff membership are subject to approval by the Board of Directors of the hospital.

At the time of the survey, the staff was composed of approximately 123 physicians, 6 of whom held National Board Certification.

The hospital is approved by the American Medical Association, Council on Medical Education and Hospitals for residency training. Two resident physicians comprise the house staff and are assigned on a mixed residency basis.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and is accredited by the National League of Nursing Education. At the time of the survey, 71 student nurses were enrolled.

An affiliation in pediatrics is maintained with the Medical College of Virginia and basic science instruction is provided by the Richmond Professional Institute.

There is no organized out-patient department service; however, the hospital maintains adequate services for private ambulatory patients.

**Johnston-Willis Hospital - See B-2 Regional Map:**

2908 Kensington Avenue, Richmond, Virginia. This institution was established by Drs. George Ben Johnston and A. Murat Willis and was opened in 1909. It is operated as a corporation and has a designed capacity of 125 beds. During 1946, its rate of occupancy averaged 98.5 per cent.

The medical staff of the hospital is organized and staff appointments are made by the Board of Trustees annually. At the time of



the survey, there were 46 members of the staff, 22 of whom held National Board Certification.

The hospital is approved for residency training in surgery and internal medicine by the American Medical Association, Council on Medical Education and Hospitals. Its School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. An average of 73 student nurses are enrolled in the school, and an affiliation in pediatrics is maintained in the Medical College of Virginia. The Richmond Professional Institute provides basic science instruction other than that which is provided by the faculty of the hospital school.

The hospital maintains no organized out-patient service.

### **Medical College of Virginia Hospital Division - See B-2 Regional Map:**

1200 East Broad Street, Richmond, Virginia - C. P. Cardwell, Jr., Administrator. The hospital division of the Medical College of Virginia owned by the Commonwealth of Virginia, was established by the Medical College and opened in 1838. The College was first established as a department of Hampden-Sydney College and became a state institution in 1860. In 1913, it consolidated with Memorial Hospital and the University College of Medicine, which was founded by Dr. Hunter H. McGuire in 1893. The present Medical College Hospital was dedicated on December 4, 1940 and is comprised of the new building just referred to, St. Philip Hospital for Negroes, opened in 1920, and Dooley Hospital, opened as an orthopedic hospital for white patients but since 1941 operated as a pediatric hospital for Negro children.

The entire hospital division has a designed capacity of 820 beds, 240 of which are reserved for the care of Negro patients. At the time of the survey, only 693 were in use, leaving a total of 143 beds primarily situated in the wards which had not been opened due to scarcity of trained personnel. The rate of occupancy for 693 beds was 72 per cent.

Medical staff privileges are restricted to faculty members, this being the customary procedure in teaching institutions. All staff members appointed in recent years either hold National Board Certification or are in the process of attaining certification. The hospital is approved by the American Medical Association, Council on Medical Education and Hospitals for intern and residency training in gynecology, obstetrics, surgery, medicine, urology, ear, nose, and throat, pediatrics, eye, neuro-surgery, psychiatry, radiology, and physical medicine. Its Schools of Nursing (St. Philip for Negroes-Medical College of Virginia for White) are approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education and also by the Board of Regents of the University of New York. Other approvals include a school of techni-

cians and physiotherapy approved by the American Medical Association and a school of dietetics approved by the American Dietetics Association.

An extensive out-patient department service is operated commensurate with the activities of a large teaching hospital. Scheduled clinics are held and during 1946, there were over 70,000 out-patient visits.

### **Retreat For The Sick Hospital - See B-2 Regional Map:**

2621 Grove Avenue, Richmond, Virginia - Charles C. Hough, Administrator. This institution was opened in 1877 and is operated as a non-profit association. It has a designed capacity of 103 beds, 26 of which are reserved for the care of Negro patients. At the time of the survey, the hospital rate of occupancy was 88.7 per cent.

The medical staff is open and staff appointments are made based upon approval of the chiefs of services and of the medical staff.

The American Medical Association, Council on Medical Education and Hospitals has approved the institution for mixed residency training and 3 resident physicians constitute the house staff.

There is no nursing school operated in connection with the hospital; therefore, the institution must rely on outside sources for this type of professional personnel.

There is no organized out-patient department.

### **Richmond Community Hospital - See B-2 Regional Map:**

1219 Overbrook Road, Richmond, Virginia - J. Wilbur Jordan, Administrator. This institution was opened in 1902 and is operated as a non-profit association. In 1935, a new building was constructed and the hospital now has a designed capacity of 24 beds. The institution is operated exclusively for the care of Negro patients.

Medical staff privileges are available to all qualified Negro physicians and at the time of the survey, the staff was composed of approximately 19 practicing physicians.

The hospital is being operated at an average of 103.7 per cent capacity. This abnormal condition, coupled with the high occupancy rate of the St. Philip Hospital (owned and operated by the Medical College of Virginia) suggests a definite need for additional general hospital beds for the Negro population of this area.

### **St. Elizabeth's Hospital - See B-2 Regional Map:**

617 West Grace Street, Richmond, Virginia - Mr. N. E. Pate, Administrator. This institution was established by Dr. J. Shelton Horsley and opened in 1912. It has a designed capacity of 49 beds and a rate of occupancy of 106 per cent.

The medical staff of the hospital is closed - the staff functions being operated on a partnership basis.



The hospital is approved for mixed residency training by the American Medical Association, Council on Medical Education and Hospitals, and its School of Nursing is approved by the Virginia State Board of Nurse Examiners. The hospital operates no obstetric service.

The out-patient department is in the charge of a registered nurse and regularly scheduled medical and surgical clinics are held. There were 9,590 out-patient visits reported for the calendar year 1946.

**St. Luke's Hospital - See B-2 Regional Map:**

1000 West Grace Street, Richmond, Virginia - Dr. John Bell Williams, Administrator. This institution was established by Dr. Hunter H. McGuire and opened in 1882. It is owned and operated by the St. Luke's Hospital Corporation.

During its history of operation, several different construction programs have been undertaken. In 1900, a new building was constructed; in 1923, an out-patient department was established; 1927, a medical library was added; 1930, a 20-bed maternity section was built. The hospital has a designed capacity of 83 beds. Its rate of occupancy for the calendar year 1946 was 100 per cent.

The hospital has an intern training program in connection with the Medical College of Virginia, and its School of Nursing is approved by the Virginia State Board of Nurse Examiners.

The medical staff is open and staff members are appointed by election. Seventeen of the approximately 43 staff members hold Hospital Board Certification.

The functions of the out-patient department are performed by the McGuire Clinic, and scheduled clinics for private patients are held daily.

**Sheltering Arms Hospital - See B-2 Regional Map:**

1008 East Clay Street, Richmond, Virginia - Miss Natalie J. Curtis, R. N., Administrator. This institution was opened in 1889 and is operated as a charitable organization. During its history of operation, several expansion programs have been undertaken; until, at the present time, there are 82 beds, all of which are reserved for the care of white patients. Its rate of occupancy averages 52 per cent.

The medical staff is composed of approximately 80 physicians, 52 of whom hold National Board Certification. Externs (Junior and Senior Medical students) are appointed to the hospital from the Medical College of Virginia. The hospital operates a School for Practical Nurses approved by the Virginia State Board of Nurse Examiners. This school is one of several now operating in the state.

**Stuart Circle Hospital - See B-2 Regional Map:**

Monument and Lombardy Streets, Richmond, Virginia - Mabel E. Montgomery, Administrator. This institution was opened in 1913

and is operating as a corporation. It has a designed capacity of 103 beds. It is approved by the American Medical Association for intern training, and its School of Nursing is approved by the Virginia State Board of Nurse Examiners. The School is affiliated in pediatrics with the Children's Hospital in Philadelphia, and the Richmond Professional Institute provides basic science instruction for the student nurses.

Its medical staff is open and appointment is made on the basis of majority vote of the Board of Directors.

There is no organized out-patient department, these services being performed by individual physicians who have their private offices within the hospital building.

### **Crippled Children's Hospital - See B-2 Regional Map:**

2924 Brook Road, Richmond, Virginia - Miss Karleen Ingersoll, R. N., Administrator. This institution was opened in 1927 and has a designed capacity of 120 beds. Its services are restricted primarily to orthopedic cases; however, there is a rheumatic fever ward containing 12 beds.

The hospital is approved for residency training in orthopedics by the American Medical Association, Council on Medical Education and Hospitals, and several schools of nursing have affiliations with this hospital in orthopedics.

The medical staff is closed.

## **INTERMEDIATE AREA NO. 3—SEE I-3 REGIONAL MAP:**

### **John Randolph Hospital:**

700 N. 4th Street, Hopewell, Virginia - Lulu S. Connelly, Administrator. This institution was opened in 1936. It operates as a non-profit association. The present capacity is 19 beds and the hospital's rate of occupancy averages 85 per cent. At the time of the survey, major changes in the present structure and a 20-bed addition were underway.

The medical staff of the hospital is organized and privileges of practice are available to all physicians approved by the Hopewell Medical Association.

There is no organized out-patient department; and in so much as the hospital is not of sufficient size for a nurses' school, this type of professional personnel must be secured from outside sources.

This small hospital is a fine example of a community undertaking designed to meet the needs of an evergrowing population.

### **Petersburg Hospital - See I-3 Regional Map:**

Madison Street at East end of Washington Street, Petersburg, Virginia - Miss Harriette A. Patteson, B. S., R. N., Administrator.



This institution, established by the Home for the Sick, was opened in 1887, and is now operated by a non-profit association. As a result of numerous additions, the designed capacity is now 90 beds and the hospital's rate of occupancy for 1946 averaged 111 per cent.

The medical staff of the hospital is open to all qualified physicians of the community. The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. At the time of the survey, there were approximately 20 student nurses enrolled.

The hospital is affiliated with the Pennsylvania Hospital in obstetrics and the Childrens' Hospital in pediatrics, both in Philadelphia, Pennsylvania.

There is no out-patient department; however, adequate services are provided for ambulatory patients.

#### **INTERMEDIATE AREA NO. 9—SEE I-9 REGIONAL MAP:**

##### **Southside Community Hospital:**

800 Oak Street, Farmville, Virginia - John M. Cofer, Jr., Administrator. This institution was opened in 1927 and is operated as a non-profit association. It has a designed capacity of 63 beds and its rate of occupancy for 1946 averages 89 per cent. Eighteen beds are reserved for the care of Negro patients.

The medical staff of the hospital is open to all qualified physicians of the area. Through a rotating intern arrangement with the Medical College of Virginia, the hospital enjoys the services of an intern. This institution is participating in the regional hospital plan operated by the Medical College of Virginia which provides consultative services in the various specialties on a scheduled basis.

The out-patient department is organized and the scheduled clinics are held daily.

#### **RURAL AREA NO. 2—SEE B-2 REGIONAL MAP:**

##### **Bell Hospital:**

Williamsburg, Virginia - Dr. B. I. Bell, Administrator. This institution is owned and operated by Dr. B. I. Bell and was opened in 1930. It has a designed capacity of 18 beds and an average rate of occupancy of 43.6 per cent.

Privileges of practice are available to all qualified physicians of the area and the functions of the out-patient services are provided by Dr. Bell and his associate, who have offices in the hospital.



**INTERMEDIATE AREA NO. 5—SEE I-5 REGIONAL MAP:****The Alexandria Hospital:**

709 Duke Street, Alexandria, Virginia - Robert G. Whitton, Administrator. This institution was first established on December 23, 1872 as The Alexandria Infirmary. In 1904, the name was changed to The Alexandria Hospital, the hospital being operated as a non-profit corporation.

Four major expansion programs have been undertaken since the hospital was organized, the most recent being in 1943-44 when a total of 101 beds and 32 bassinets were added, with assistance obtained through the Lanham Act. The hospital is designed for a total of 158 beds, 25 of which are reserved for the care of Negro patients. The hospital's statistics show that for 1946 the rate of occupancy averaged 85.6 per cent.

Approvals for residency and intern training in medicine, obstetrics-gynecology, and surgery are maintained. At the time of the survey, 12 interns and residents were employed on the house staff. The medical staff of the hospital is open to qualified physicians, and 39 of its members hold National Board Certification representative of 15 of the medical specialties. The greatest majority of the staff members are residents of the City of Alexandria and of Arlington County, Virginia. Qualified Negro physicians of the area are extended the privileges of practice.

The hospital operates a School of Nursing approved by the Virginia State Board of Nurse Examiners. At the time of the survey, 50 student nurses were enrolled. The Nursing School is affiliated with the Childrens' Hospital in Washington in pediatrics and the St. Elizabeth's Hospital in Washington in psychiatry.

The functions of the out-patient department service are performed by the Alexandria Community Health Center, the quarters of which are adjacent to the hospital but not under the hospital's administration. The staffs are interlocking, with referrals of patients, resident staff and medical records freely exchanged. The clinics' records show an average of 12,000 patients a year.

**Arlington Hospital - See I-5 Regional Map:**

Sixteenth and North Edison Streets, Arlington, Virginia - Mr. Karl H. York, Administrator. This institution was established by the Federal Works Agency in 1944 and is presently operated by the Arlington Hospital Association, which holds a Federal Government lease. Our understanding is that the Arlington Hospital Association has an option to purchase the hospital property.

Through conversion of existing space, 10 additional beds were provided in 1945. The hospital is designed to operate 100 beds, of which



14 are reserved for the care of Negro patients. During 1946, the hospital's records indicated an average of 85 per cent occupancy.

Application for residency training was on file with the American Medical Association, Council on Medical Education and Hospitals and approval was pending at the time of the survey.

No nursing school is operated by the hospital; and, therefore, the institution must depend on outside sources for graduate nurse personnel.

The medical staff is open to qualified physicians of the area, and 40 members of the staff hold National Board Certification. We understand that the staffs of this institution and that of the Alexandria Hospital, in many respects, have privileges of practice at both institutions.

No organized out-patient department service is available. However, services for ambulatory patients, both free and private, are provided at an adequate level.

The high rate of occupancy of this institution with the comparatively short period of time since it was opened, together with the high rate of occupancy of The Alexandria Hospital, suggests an immediate need for additional general bed facilities in this area. More concerning this matter will be dealt with in a later chapter of this report.

#### **Circle Terrace Hospital - See I-5 Regional Map:**

Virginia Avenue and Farm Road, Alexandria, Virginia - Dr. H. A. Latane, President. The hospital, owned and operated by the Circle Terrace Corporation, was opened in 1941. In 1945, a new building was constructed and 18 beds added, together with a clinical laboratory and x-ray facilities. The hospital is now designed to accommodate 48 patients. Its services are restricted primarily to the treatment of general medical cases, and it falls in the category of an allied special hospital.

The medical staff is open, and any physician who is a member of the staff of an accredited hospital is extended the privileges of the hospital.

The hospital operates no school of nursing and at the present time has no organized out-patient department.

#### **INTERMEDIATE AREA NO. 6—SEE I-6 REGIONAL MAP:**

##### **Front Royal Community Hospital, Inc.:**

406 North Royal Avenue, Front Royal, Virginia - Mr. Craig A. Livingston, Business Manager. This institution was established by Drs. Rountree, Bishop, and Lynn and was opened in 1938. It is now



operating as a non-profit association and is designed for 22 beds. Negro patients are admitted, but no specific number of beds are reserved for their care. During 1946, an average bed occupancy of 73 per cent was reported.

The medical staff is open to qualified physicians of the community.

No organized out-patient services are available; however, adequate services are provided ambulatory patients, both free and private.

### **Winchester Memorial Hospital - See I-6 Regional Map:**

South Stewart Street, Winchester, Virginia - Mr. Homer E. Alberti, Administrator. This hospital was opened in 1902 and has operated continuously since that time as a non-profit association. It is designed to accommodate 160 patients, including 8 beds reserved for the care of Negro patients. The 95 per cent occupancy reported for 1946 is an abnormally high rate for an institution of this size.

There have been no recent additions to the hospital, although during the past five years, all private rooms with the exception of 37, have been made semi-private accommodations to increase the bed capacity.

The hospital is not approved for residency training; however, the School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. At the time of the survey, a total of 44 students was enrolled.

There is no organized out-patient department; however, adequate ambulatory service is provided. We believe that an extensive out-patient service is greatly needed in this area.

The medical staff of the hospital is open to all qualified physicians in the area and numbers approximately 47 physicians. Of this number, 12 hold National Board Certification.

### **RURAL AREA NO. 7—SEE R-7 REGIONAL MAP:**

#### **Physicians' Hospital, Inc.:**

118 Waterloo Street, Warrenton, Virginia - Miss S. Lena Yates, R. N., Superintendent. This institution, operated as a private corporation by a local group of physicians, was first opened in 1942. In 1946, twelve adult beds were added, bringing the designed capacity to 40 beds. Of this number, 6 beds are reserved for the care of Negro patients. The percentage of occupancy for 1946 averaged 57 per cent.

The medical staff is closed in that no courtesy staff privileges are available.

The hospital has no organized out-patient department; however, ambulatory services are available on an emergency basis.

# COMMONWEALTH OF VIRGINIA GENERAL HOSPITAL REGIONS INCLUDING SERVICE AREAS

- LEGEND**
- AREA HOSPITAL CENTER
  - HOSPITAL COMMUNITY
  - REGIONAL BOUNDARY
  - - - AREA BOUNDARY
  - - - COUNTY BOUNDARY
  - BASE AREA IDENTIFICATION
  - 1-1 INTERMEDIATE AREA IDENTIFICATION
  - R-1 RURAL AREA IDENTIFICATION

VIRGINIA STATE HEALTH DEPARTMENT  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
SEPTEMBER 12, 1947

SCALE IN MILES  
0 10 20 30  
MILES

NORTHERN VIRGINIA REGION



**RURAL AREA NO. 8—SEE R-8 REGIONAL MAP:****Loudoun County Hospital, Inc.:**

Leesburg, Virginia - Mrs. Maud S. Aiton, R. N., Superintendent. This hospital was established by the Leesburg Hospital, Inc. and opened in 1912. In 1913, 12 adult beds were added, and in 1918 a new hospital was constructed. The institution is now operated by the Executive Board of the Loudoun County Hospital. It has a designed capacity of 26 beds. Of this number, 6 are reserved for Negro patients. During 1946, the institution operated at an average occupancy of 60 per cent.

There is no organized out-patient department; however, adequate departmental service in radiology and clinical laboratory is maintained by the institution.

**BASE AREA NO. 4—SEE B-4 REGIONAL MAP:****Gordonsville Community Hospital:**

Main Street, Gordonsville, Virginia - Dr. H. C. McCoy, Owner and Administrator. This hospital was established in 1941 by Drs. W. C. Mason and H. C. McCoy. It is now owned and operated by Dr. McCoy and has a designed capacity of 17 beds, two of which are reserved for the care of Negro patients. At the time of the survey, the hospital was operated at a 65 per cent occupancy.

The medical staff is destined to be on a partnership basis when physicians are more readily available. At the present time, Dr. McCoy performs the majority of the professional services. No operative obstetrics are done. The functions of an out-patient department are carried out by Dr. McCoy, whose offices are located in the hospital building. The institution, although small, is providing a definite community service.

**Louisa Community Hospital - See B-4 Regional Map:**

Louisa, Virginia - This institution, owned and operated by the Louisa Community Hospital Association, was opened in 1946. In view of the comparatively short time of operation, we were unable to secure sufficiently detailed statistical data to adequately foresee the future of the hospital. The hospital is presently designed for 14 adult beds, including 3 reserved for the care of Negro patients. Records of three months' operation show 35.7 per cent occupancy.

The medical staff is open to qualified physicians in the area. Patients requiring highly specialized medical procedures are referred either to Charlottesville or Richmond. We suggest that our successors revisit this institution at the end of one year's operation in order that a more adequate picture of its operation can be determined.



**Martha Jefferson Hospital & Sanitarium, Inc. - See B-4 Regional Map:**

459 Locust Avenue, Charlottesville, Virginia - Miss Annie Jo Blanton, Superintendent. This institution was established in 1904 as a non-profit association and has a designed bed capacity of 48. There are no beds for Negro patients. During 1946, the hospital was operated at a 93 per cent rate of occupancy.

The medical staff is open and privileges of practice in the various specialties are limited to those who have received specialty training. Situated in Charlottesville near the University Hospital, this institution enjoys the availability of more medical services than is ordinarily found so near in a hospital of its size.

Adequate departmental services are provided; however, there is no organized out-patient department service. Ambulatory patients may receive adequate emergency service.

When the projected building capacity is completed, the authorities of the hospital hope to meet the requirements for approval for internships and residencies in ear, nose, and throat and general surgery.

**University of Virginia Hospital - See B-4 Regional Map:**

University Station, Charlottesville, Virginia - Dr. Carlisle S. Lentz, Administrator. This teaching hospital, owned by the Commonwealth of Virginia and operated by the University of Virginia was opened in 1901. Through conversion and new construction through the years, the designed bed capacity is now 498 adult beds. Of this number, 71 are reserved for the treatment of Negro patients. The hospital is approved for internships' and residencies' training in obstetrics, urology, radiology, eye, ear, nose, and throat, dermatology, syphilology, neuropsychiatry, and neuro-surgery. At the time of the survey, there were 62 members of the house staff.

The medical staff of the hospital is closed to the faculty membership of the medical school, as is ordinarily found in teaching hospitals. The Nursing School is approved by the Virginia State Board of Nurse Examiners and is accredited by the National League of Nursing Education. At the time of the survey, 188 students were enrolled. Courses for the training of laboratory technicians and x-ray technicians are also maintained. An extensive out-patient department is operated by the hospital.

**INTERMEDIATE AREA NO. 4—SEE I-4 REGIONAL MAP:****Mary Washington Hospital:**

Corner Sophia and Fauquier Streets, Fredericksburg, Virginia - Miss Ellen J. Owens, Administrator. This institution is owned and operated by the Mary Washington Hospital Association, Inc. and was



opened in 1898. It has a designed capacity of 80 beds, including 18 for the care of Negro patients. In 1946 the rate of occupancy was 73 per cent.

The medical staff of the hospital is open to both active and courtesy groups. Two of the staff members hold National Board Certification. There is no approval for the training of residencies or interns; however, the hospital is a member of a regional hospital plan operated by the Medical College of Virginia. As a result of this plan, the hospital enjoys the service of rotating interns and the medical staff of the hospital has available consultative service upon request.

There is no organized out-patient department operated by the hospital. Thoroughly competent departmental services are maintained and the x-ray department is operated through an arrangement with the University of Virginia Hospital.

#### **INTERMEDIATE AREA NO. 7—SEE I-7 REGIONAL MAP:**

##### **Rockingham Memorial Hospital:**

738 South Mason Street, Harrisonburg, Virginia - Mr. Charles Tiffany Loftus, Administrator. This hospital was opened in 1912 and as a result of new construction and conversion, now has a designed capacity of 136 beds, including 8 for the care of Negro patients.

The medical staff of the hospital is open to qualified physicians of the area and three of its members now hold National Board Certification.

A School of Nursing is approved by the Virginia State Board of Nurse Examiners and at the time of the survey, 59 students were enrolled. Basic science instruction for the student nurses is provided by the faculty of Madison College in Harrisonburg.

There is no completely organized out-patient department service; however, adequate ambulatory services are provided both free and private patients. The size of the hospital and of the area it serves suggest the need for a more extensive clinic service.

The institution is almost completely filled at all times and during 1946, averaged 99.8 per cent rate of occupancy. Plans are understood to be underway for the construction of additional beds to relieve this acute situation.

#### **INTERMEDIATE AREA NO. 8—SEE I-8 REGIONAL MAP:**

##### **King's Daughters' Hospital:**

226 East Frederick Street, Staunton, Virginia - Miss Lula West, Director. This institution was incorporated in 1896 and is operated as a non-profit association. It has a designed capacity of 75 adult

beds, including 6 reserved for the care of Negro patients. During 1946 it operated at 73 per cent capacity. There is no school of nursing and the hospital must rely on outside sources for this type of personnel.

The medical staff is open to both active and courtesy groups and is appointed by approval of the medical staff and the Board of Managers. There is, at the present time, no organized out-patient department.

**Waynesboro Community Hospital, Inc. - See I-8 Regional Map:**

Jefferson Highway, Waynesboro, Virginia - Miss Mary Shannon Webster, Administrator. This institution was opened in 1937 and is operated as a non-profit association. It has a designed capacity of 41 adult beds, including 4 reserved for the care of Negro patients. The rate of occupancy for 1946 was 57 per cent.

The medical staff of the hospital is open to all qualified physicians of the community and appointments are made on recommendation of the staff and approval of the Board of Trustees. There is no organized out-patient department, but the hospital provides adequate service for ambulatory patients.

**INTERMEDIATE AREA NO. 10—SEE I-10  
REGIONAL MAP:**

**Bedford General Hospital:**

Bedford, Virginia - Anray Keith Williams, Administrator. This hospital was established by Dr. R. B. Williams in 1945 and has a designed capacity of 25 beds. During 1946, its rate of occupancy was 51 per cent.

There is no formal organization of the medical staff.

Negro patients are admitted and several beds are reserved for their care.

**John Russell Hospital - See I-10 Regional Map:**

Bedford, Virginia - J. G. Jantz, M. D., Surgeon in Charge. This institution was incorporated in 1935 and has a designed capacity of 25 beds. During 1946, its rate of occupancy, based on figures of the American Medical Association, was 70 per cent.

There is no organized medical staff, although it was noted that all general practitioners have privileges of practice in normal obstetrics.

**Lynchburg General Hospital - See I-10 Regional Map:**

701 Hollins Street, Lynchburg, Virginia - Robert Hudgens, Administrator. This institution opened in 1912 and for many years has been operated by the City of Lynchburg. More recently the manage-

ment and control of the hospital has been vested in the Hospital Authority of the City of Lynchburg.

The hospital is fully approved by The American College of Surgeons.

It has a designed capacity of 150 beds, 79 of which are reserved for the care of Negro patients.

The hospital reported a rate of occupancy of 73.6 per cent for the calendar year, 1946.

The medical staff is open and terms of appointment are indefinite. At the time of the survey, approximately 63 physicians constituted the staff membership, 18 of whom held National Board Certification.

At the time of the survey, 37 students were enrolled in the School of Nursing which is approved by the State Board of Nurse Examiners. No affiliation with other hospitals is necessary in that all the curriculum is provided by the hospital staff. Four interns, assigned on a rotating service basis, constitute the house staff.

The hospital maintains no organized out-patient department; however, adequate services are available for ambulatory patients in emergencies.

#### **The Marshall Lodge Memorial Hospital, Inc. - See I-10 Regional Map:**

1503 and 1902 Grace Street, Lynchburg, Virginia - Miss Lillian E. Van Pelt, R. N., Administrator. This institution, opened in 1886, was incorporated as a non-profit association in 1919. Several additions have occurred, the first of which was in 1921 which saw the construction of an additional 35 beds. Again in 1929, 50 beds were added and in 1944, a maternity section with 30 beds was built. The hospital now has a designed capacity of 130 beds and for 1946 had a reported capacity of 58 per cent.

The medical staff of the hospital is organized and is open to qualified physicians of the community. At the time of the survey, there were approximately 59 members of the medical staff.

The hospital operates no nursing school; and, therefore, must rely on outside sources for this type of professional personnel.

There is no organized out-patient department.

#### **The Piedmont General Hospital - See I-10 Regional Map:**

Altavista, Virginia - Dr. J. Paul Kent, Administrator. This institution was opened in 1946 and is owned and operated by Dr. J. Paul Kent. It has a designed capacity of 18 beds, 4 of which are reserved for the care of Negro patients. At the time of the survey, a rate of occupancy of 55.5 per cent was reported.

The medical staff of the hospital is open and membership is extended physicians upon application to and approval of the medical



director. The hospital has no organized out-patient department; however, Dr. Kent and his associate maintain their offices within the hospital building and are available on scheduled hours for office visits.

The institution has not been in operation for sufficient time to adequately foresee its future; however, its present rate of occupancy suggests its need.

#### **Virginia Baptist Hospital - See I-10 Regional Map:**

Rivermont Avenue, Lynchburg, Virginia - Mary F. Cowling, R. N., Administrator. This institution was opened in 1924, being established by the Baptist Denomination of Virginia. In 1926, 50 additional beds were added and the designed capacity of the hospital is now 96 beds. At the time of the survey, a rate of occupancy of 85 per cent was reported.

The medical staff is organized and privileges of practice are extended to all qualified physicians of the area. At the time of the survey, there were approximately 52 members of the staff, of which 17 held National Board Certification.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. At the time of the survey, 56 student nurses were enrolled and affiliation with The Childrens' Hospital of Philadelphia is maintained in pediatrics.

There is no organized out-patient department; however, services for ambulatory patients are available.

#### **RURAL AREA NO. 9—SEE R-9 REGIONAL MAP:**

##### **Cora Miller Memorial Hospital:**

118 Muhlenburg Street, Woodstock, Virginia - Mrs. Susan B. Miller, R. N., Administrator. This hospital was opened in 1939 by Dr. Harold W. Miller. In 1940, 12 additional beds were added and the hospital now has a designed capacity of 38 beds, 2 of which are reserved for the care of Negro patients. At the time of the survey, it reported an occupancy of 56.3 per cent.

The medical staff of the hospital is organized and at the time of the survey 17 physicians constituted its membership.

It is our understanding that eventually a new hospital is planned for the county, at which time this institution will close.

##### **Page Memorial Hospital - See R-9 Regional Map:**

140 South Court Street, Luray, Virginia - Lloyd G. Kibler, Administrator. This institution was opened in 1928 as a non-profit association. It has a designed capacity of 21 beds, 3 of which are reserved for Negro patients. At the time of the survey, its rate of occupancy was 61 per cent.

The medical staff is not organized, and there is no out-patient department service available.





**INTERMEDIATE AREA NO. 11—SEE I-11  
REGIONAL MAP****Danville Community Hospital:**

212 West Main Street, Danville, Virginia - Miss Mary V. Hatchett, Business Manager. This institution, a corporation, was opened in 1932. For various reasons, since its opening, it has ceased operation for short periods of time.

The hospital is designed to operate 45 beds, all of which are reserved for the maintenance of white patients. During 1946, the hospital's rate of occupancy was 79 per cent based on its normal bed capacity.

The medical staff is open to qualified physicians of the local community. The hospital does not operate a nursing school and thus has to rely upon other sources for this type of personnel. There is no organized out-patient department.

The hospital is located in a converted residence.

**The Memorial Hospital - See I-11 Regional Map:**

142 South Main Street, Danville, Virginia - Miss Ferma Hoover, R. N., Superintendent. This 170-bed general hospital was first established in 1897 by the Ladies' Benevolent Society. In 1929, the interest of the Edmunds Hospital was merged. Two major expansion programs have been completed, the first taking place in 1925 with the addition of 110 adult beds and 10 bassinets. In 1946, a new x-ray department and laboratory were added through conversion of existing space.

More than 75 per cent of the patients treated in this hospital are residents of Danville and Schoolfield, a community immediately adjacent to Danville. This hospital is being operated at an average of 88 per cent bed occupancy. This rate of occupancy shows a need for expanded facilities to meet the present demands.

The medical staff is open and ten of its members are certified by the American Board. The hospital is not approved at this time for residence training. The School of Nursing is approved by the Virginia State Board of Nurse Examiners; and at the time of the survey, 39 students were enrolled. An affiliation in pediatrics is maintained with the Childrens' Hospital in Washington, D. C.

No space is reserved for Negro patients.

Regrettably, there is no out-patient department in this hospital for which, we believe, there is great need in this area.

**Winslow Hospital - See I-11 Regional Map:**

Mrs. A. H. Walker, Superintendent. This institution, owned and operated by the City of Danville for the exclusive care of Negro

patients, was opened in 1940 and is designed to operate 38 beds. During 1946, it was operated at an average bed occupancy of 54 per cent.

The medical staff of the hospital is open and is composed of the local physicians. No nursing school is maintained. There is no organized out-patient service, and presumably patients must seek this type of service in the offices of local physicians.

We suggest a careful study of the hospital's departmental functions toward providing more adequate x-ray and clinical laboratory facilities.

### **RURAL AREA NO. 11—SEE R-11 REGIONAL MAP:**

#### **South Boston Hospital:**

1201 Main Street, South Boston, Virginia - Dr. W. R. Watkins, President. The present hospital was founded by the late Dr. Fuller and was operated by him until his death in 1943. In 1943, Drs. William R. Watkins and Keith Briggs, owners of the Halcyon Hospital, purchased the South Boston Hospital. These two institutions were merged and are now operated as a corporation.

# COMMONWEALTH OF VIRGINIA GENERAL HOSPITAL REGIONS INCLUDING SERVICE AREAS

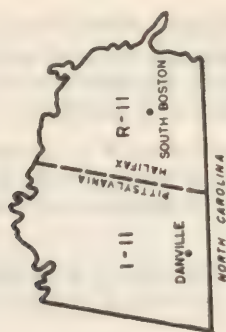
## LEGEND

- AREA HOSPITAL CENTER
- HOSPITAL COMMUNITY
- REGIONAL BOUNDARY
- AREA BOUNDARY
- COUNTY BOUNDARY
- B-1 BASE AREA IDENTIFICATION
- I-1 INTERMEDIATE AREA IDENTIFICATION
- R-1 RURAL AREA IDENTIFICATION

VIRGINIA STATE HEALTH DEPARTMENT  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
SEPTEMBER 12, 1947

SCALE IN MILES  
10 0 10 20 30 40  
MILES

DANVILLE REGION





**Danville Region - Continued.**

The designed capacity of the institution is 42 beds including 8 beds reserved for the care of Negro patients. At the time of the survey the rate of occupancy was 69.8 per cent.

The medical staff is composed of Drs. Watkins and Briggs, who maintain their offices in the hospital building. In addition, it is reported that all qualified physicians of the county have courtesy staff privileges.

No nursing school is operated and the hospital has had to rely primarily on practical nurses and licensed attendants for their nursing service.

There is no organized out-patient department, these functions being carried on in the offices of Drs. Watkins and Briggs.

**BASE AREA NO. 5—SEE B-5 REGIONAL MAP:****Burrell Memorial Hospital:**

611 McDowell Avenue, N. W., Roanoke, Virginia - Dr. L. C. Downing, Administrator. This institution owned and operated by the Burrell Memorial Hospital Association was opened in 1915. It has a designed capacity of 44 beds, and its services are restricted to Negro patients. During 1946, the hospital's rate of occupancy was 78.7 per cent.

The medical staff is comprised of qualified physicians of the community and privileges of practice are extended upon application to and approval by the Credentials Committee of the staff, together with the Board of Trustees. At the time of the survey, at least 2 of the 34 staff members had completed their basic requirements for National Board Certification.

The hospital operates no school of nursing; and therefore must rely on other sources for this type of personnel. It is approved by the American College of Surgeons.

The out-patient department is staffed by regular members of the hospital and regularly scheduled out-patient clinics were reported to be held.

**Jefferson Hospital, Inc.: - See B-5 Regional Map:**

1313 Franklin Road, Roanoke, Virginia - Mr. William Lees, Superintendent. This institution was established by Dr. Hugh H. Trout and opened in 1908. It has a designed capacity of 108 beds and its rate of occupancy for 1946 was 121 per cent based on its designed capacity.

The medical staff of the hospital is closed, and membership on the staff is subject to the approval of the heads of the various depart-

ments. At the time of the survey, there were 9 members holding National Board Certification. The hospital is approved by the American Medical Association, Council on Medical Education and Hospitals for resident training in surgery, and interns are assigned on a mixed service basis.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. At the time of the survey, a total of 65 student nurses were enrolled. The school is affiliated with the Veterans' Hospital, Roanoke, Virginia for special clinical services such as psychiatry; and all the basic science instruction, with the exception of chemistry, is provided by the faculty of the hospital.

The out-patient department service is organized and under the supervision of a graduate nurse. General dispensary care is available at all times; and during 1946, 29,930 out-patient visits were recorded from 13,248 patients.

#### **Lewis Gale Hospital - See B-5 Regional Map:**

Third and Luck Avenues, Roanoke, Virginia - Mr. Stuart G. Aldhizer, Administrator. This institution was opened in 1909 and is owned and operated by the Lewis Gale Hospital Corporation. It has a designed capacity of 152 beds; and during 1946, its rate of occupancy was 94 per cent. Four of the 152 beds are reserved for the care of Negro patients.

The medical staff of the hospital is closed and appointments to the staff are made by the Executive Committee. At the time of the survey, 6 of the staff members held National Board Certification. The hospital is approved for intern training by the American Medical Association, Council on Medical Education and Hospitals. They are assigned on a rotating service basis. Residents in medicine and surgery are employed.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. At the time of the survey, 96 students were enrolled. The hospital does not find it necessary to affiliate with other hospitals for basic services, and its school faculty provides all basic science instruction, with the exception of chemistry, which is taught at a local high school.

The out-patient department is under the direction of a physician. There is a private clinic operated in conjunction with the Norfolk & Western Railway Company. During 1946, there were 35,762 out-patient visits.

#### **Roanoke Hospital - See B-5 Regional Map:**

Bellevue and Lake Avenues, Roanoke, Virginia - H. W. Popper, Administrator. This hospital was established by the King's Daughters and was opened in 1890. It is now operated by the Roanoke

Hospital Association. Its history of operation has seen considerable additions and structural changes until, at the present time, the hospital has a designed capacity of 108 beds and for the year 1946, reported 88 per cent rate of occupancy.

The medical staff is open and privileges of practice are available to qualified men of the community. At the time of the survey, the staff membership was composed of 62 physicians, 35 of whom held National Board Certification. The American Medical Association, Council on Medical Education and Hospitals has approved the hospital for intern training, and resident physicians are also employed.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education. An average of 48 students are enrolled.

An out-patient department is operated in conjunction with the hospital and regularly scheduled sessions are held.

#### **Shenandoah Hospital - See B-5 Regional Map:**

712 Campbell Avenue, Roanoke, Virginia - R. P. Zimmerman, Administrator. This institution was opened in 1913 and has a designed capacity of 53 beds. During 1946, its rate of occupancy was 85 per cent.

The medical staff of the hospital is open and privileges of practice are available to qualified physicians "practicing within a reasonable distance of the hospital."

There is no organized out-patient department; however, services are available for private ambulatory patients.

#### **Gill Memorial Eye, Ear and Throat Hospital - See B-5 Regional Map:**

711 South Jefferson Street, Roanoke, Virginia - Dr. E. G. Gill, Owner and Administrator. This institution was opened in 1926 by Dr. E. G. Gill. It has a designed capacity of 15 beds and a reported 58 per cent rate of occupancy for 1946. Its services are restricted to eye, ear, nose and throat patients.

An out-patient department is operated in conjunction with the hospital activities, and during 1946 there were 14,172 out-patient visits.

### **INTERMEDIATE AREA NO. 12—SEE I-12 REGIONAL MAP:**

#### **Martinsville General Hospital:**

15 Starling Avenue, Martinsville, Virginia. This institution was opened in 1947, having been built through a Federal aid under the Lanham Act. It has a designed capacity of 104 beds.



The medical staff is open and privileges of practice are available to all qualified physicians of the community.

The hospital has not been in operation for a sufficient length of time to properly evaluate its statistical information. It is recommended that the successors to this office undertake a further study of the hospital after one year's operation.

**St. Mary's Hospital - See I-12 Regional Map:**

141 Fayette Street, Martinsville, Virginia - Dr. J. C. Commander, Medical Director. This institution was established by Dr. D. O. Baldwin and opened in 1928. It is presently owned by Dr. Baldwin. It has a designed capacity of 8 beds, and for 1946 there was a 120 per cent rate of occupancy.

The hospital is operated in a building which contains other business units, and its size is such that it cannot properly diversify its services. However, this is no reflection on the quality of medical services available in this medical unit.

**INTERMEDIATE AREA NO. 13—SEE I-13  
REGIONAL MAP:**

**Alleghany Memorial Hospital:**

110 Rosedale Avenue, Covington, Virginia. This institution, formerly known as the Covington General Hospital, was established by Dr. W. Preston Burton and was opened in 1942. It has a designed capacity of 30 beds, and its rate of occupancy for 1946 was reported as 69 per cent. Three of the 30 beds are reserved for the care of Negro patients.

The medical staff is open and privileges of practice are available to all qualified physicians of the area.

The hospital has recently been purchased from the estate of Dr. Burton and is now operated by the Hospital Commission of Alleghany County, Virginia.

**Chesapeake & Ohio Employees' Hospital: - See I-13 Regional Map:**

Bridgeway Street, Clifton Forge, Virginia - Dr. J. M. Emmett, Chief Surgeon. This hospital was opened in 1913. It is owned by the Chesapeake & Ohio Railway and operated by the Chesapeake & Ohio Employees' Association. It has a designed capacity of 135 beds, 18 of which are reserved for the care of Negro patients. During 1946, it had a reported rate of occupancy of 88.8 per cent. The hospital is approved by the American Medical Association, Council on Medical Education and Hospitals for intern and resident training.

Its School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing



Education. At the time of the survey, 81 student nurses were enrolled. The school is affiliated with the Cincinnati General Hospital, Cincinnati, Ohio in pediatrics and obstetrics and with the St. Elizabeth Hospital, Washington, D. C., in psychiatry.

The medical staff is closed, as privileges of practice are restricted to the active staff. Of the total staff membership, 5 held National Board Certification at the time of the survey.

The out-patient department is under the general direction of the medical and surgical staff and during 1946, 9,586 patients were treated.

### INTERMEDIATE AREA NO. 14—SEE I-14 REGIONAL MAP:

#### **New Altamont Hospital:**

100 Radford Road, Christiansburg, Virginia - Dr. A. M. Showalter, Administrator. This institution was opened in 1922. It has a designed capacity of 25 beds. During 1946, its rate of occupancy was 81 per cent.

Privileges of practice are available to all qualified physicians in the area. At the time of the survey, the staff was composed of approximately 24 physicians.

Out-patient department functions are carried on by the hospital staff and these services are available on a 24-hour basis.

#### **Radford Community Hospital, Inc.: - See I-14 Regional Map:**

8th and Randolph Streets, Radford, Virginia - George C. Poff, Administrator. This institution was opened in 1941 and in 1943 moved to a new hospital building which was provided by the Federal Works Agency under the Lanham Act. It has a designed capacity of 68 beds, 8 of which are reserved for the care of Negro patients. During 1946, the hospital's rate of occupancy was 88 per cent.

The medical staff is open to all qualified physicians of the area and at the time of the survey, 29 physicians constituted membership of the staff.

The hospital operates a School of Nursing which is approved by the Virginia State Board of Nurse Examiners. The school is affiliated with the Medical College of Virginia in pediatrics, communicable diseases and diet therapy and with the St. Albans Sanatorium, Radford, Virginia, in psychiatry. Basic science instruction is provided at Radford College, Women's Division of V. P. I.

At the time of the survey, there was no organized out-patient department; however, adequate services are available to both free and private ambulatory patients.

**INTERMEDIATE AREA NO. 15—SEE I-15  
REGIONAL MAP:****Johnston Memorial Hospital:**

Court Street, Abingdon, Virginia - Roy Brown, Director. This institution was opened in 1910 and is now operated as a non-profit association. It has a designed capacity of 60 beds and during 1946, its rate of occupancy was reported as 108 per cent, based on the designed capacity.

The medical staff of the hospital is open and privileges of practice are available to all qualified physicians of the area. Three of the staff hold National Board Certification.

The School of Nursing, which is operated in conjunction with the hospital, is approved by the Virginia State Board of Nurse Examiners. At the time of the survey, 28 students were enrolled. The school maintains an affiliation with the Medical College of Virginia in obstetrics and pediatrics.

There is no organized out-patient department, however the hospital maintains adequate services for both free and private ambulatory patients.

**King's Mountain Memorial Hospital - See I-15 Regional Map:**

1245 State Street, Bristol, Virginia - Mr. Douglas H. Colson, Superintendent. This institution was opened in 1925 and is operated by the King's Mountain Memorial Hospital Association. It has a designed capacity of 59 beds and during 1946, its rate of occupancy was reported as 97.5 per cent.

Privileges of practice in the hospital are available to qualified physicians upon formal written application to the Board of Trustees.

The hospital operates no school of nursing; and, therefore, must rely upon outside sources for this type of personnel.

The out-patient department is under the general supervision of the registered nurse and scheduled clinical sessions are held. During 1946, statistics show 2,625 out-patient visits.

**Grigsby's Hospital - See I-15 Regional Map:**

308 Moore Street, Bristol, Virginia - Dr. B. C. Grigsby, Administrator. This institution was opened on June 12, 1946 by Dr. B. C. Grigsby, and its services are primarily restricted to obstetrics and gynecology. It has a designed capacity of 16 beds and a 56.6 per cent rate of occupancy for 1946. The statistics are based upon 211 days of operation.

**RURAL AREA NO. 12—SEE R-12 REGIONAL MAP:****Clinch Valley Clinic Hospital:**

Richlands, Virginia - Mr. Homer Allen, Administrator. The Bluefield Sanitarium, Inc. established the Clinch Valley Clinic Hospital in 1938. It has a designed capacity of 82 beds, 6 of which are reserved for the care of Negro patients. The rate of occupancy for the calendar year 1946 was 89 per cent.

The medical staff is open and privileges of practice are available upon application to and approval of the Board of Trustees.

The out-patient department of the hospital is under the supervision of the Medical Director, and general clinic sessions are held daily.

There were 13,706 out-patient visits reported for 1946. There is no school of nursing.

**Dickenson County Hospital - See R-12 Regional Map:**

Main Street, Clintwood, Virginia - Dr. R. L. Phipps, Physician in charge. Dr. R. L. Phipps established this institution in 1930 and is presently operating the hospital. It has a designed capacity of 19 beds and a reported rate of occupancy of 40 per cent.

The medical staff of the hospital is not organized and the majority of the medical services are performed by the owner.

**RURAL AREA NO. 10—SEE R-10 REGIONAL MAP:****Community House Hospital:**

Hot Springs, Virginia - Miss Anna C. Harrington, Supervisor. This institution is owned and operated by the Hot Springs Valley Nursing Association and was opened in 1926. It has a designed capacity of 14 beds and an estimated 41 per cent rate of occupancy for 1946.

Privileges of practice are available to qualified physicians upon approval of the Board of Directors. Although the size of the institution is not sufficient to afford all of the diversified services of a general hospital, it is performing a much needed service to the community.

**Stonewall Jackson Memorial Hospital - See R-10 Regional Map:**

10 Washington Street, Lexington, Virginia - Miss Charlotte Moore, Superintendent. The Mary Custis Lee Chapter, United Daughters of the Confederacy, established the Stonewall Jackson Memorial Hospital in 1902. It is now operated as a non-profit association and has a designed capacity of 55 beds and a rate of occu-



pancy of 71.5 per cent. Five of the beds are reserved for the care of Negro patients.

Privileges of practice are available to the physicians of the community, and at the time of the survey the staff was comprised of approximately 17 men.

The hospital operates no school of nursing, nor does it have an organized out-patient department.

#### **Jeffersonville Hospital - See R-12 Regional Map:**

Tazewell, Virginia - Dr. M. E. Johnston, Administrator. This hospital had just been opened when the survey began, and there has not been sufficient time to adequately forecast its fiscal operation.

It is recommended that successors to this office restudy the hospital after one year's operation.

#### **Mattie Williams Hospital - See R-12 Regional Map:**

Richlands, Virginia - Mr. Kenneth L. Williams, Administrator. This institution, presently operated by Dr. James P. Williams, was opened in 1915. It has a designed capacity of 45 beds; and at the time of the survey, reported a 92 per cent rate of occupancy.

The medical staff is closed in that privileges of practice are restricted to the active staff. Two of the staff members hold National Board Certification.

There is no nursing school operated in conjunction with the hospital and the out-patient department is not organized, although adequate services are available to ambulatory patients.

#### **Grundy Hospital - See R-12 Regional Map:**

Grundy, Virginia - Kenneth Williams, Business Manager. During the course of the survey, this institution was burned and suffered a severe loss. One wing, containing 25 beds, was left intact. By mutual agreement with the Business Manager, this hospital is being reported on the basis of its present operating capacity and does not take into account any new construction which is contemplated for the near future.

### **RURAL AREA NO. 13—SEE R-13 REGIONAL MAP:**

#### **Appalachia General Hospital:**

307 Wise Street, Appalachia, Virginia - Mr. Roy M. Willis, Administrator. This institution was established by the Masonic Order in 1926, and since August, 1946 has been owned and operated by Mr. Roy M. Willis and Dr. J. J. Porter. It has a designed capacity of 19 beds. Its physical facilities are located in a converted residence.

At the time of the survey, Dr. Porter was the only physician performing general surgery, but it was indicated that all general practitioners were eligible for practice in the institution.

Ambulatory patients are seen by Dr. Porter. He maintains his office in the hospital.



**Lee General Hospital, Inc. - See R-13 Regional Map:**

Pennington Gap, Virginia. This institution was opened in 1930 and has a designed capacity of 40 beds. Its physical plant is located in a converted school building. At the time of the survey, the hospital's rate of occupancy was 63 per cent.

The medical staff is closed in that privileges of practice are restricted to the active staff.

There is no out-patient department - these services presumedly being carried on in the offices of the individual physicians.

**Coeburn Hospital - See R-13 Regional Map:**

Coeburn, Virginia. This hospital was opened in 1914 and has a designed capacity of 17 beds with a reported rate of occupancy of 94 per cent.

The medical staff is operated on a partnership basis.

**Norton Clinic - See R-13 Regional Map:**

916 Virginia Avenue, Norton, Virginia - Dr. N. H. Short, Owner and Administrator. Dr. N. H. Short established the Norton Clinic in 1938. In 1942, a new wing was added to the existing building and the hospital now has a designed capacity of 45 beds, 6 of which are reserved for the care of Negro patients. At the time of the survey, its rate of occupancy was 44 per cent.

The medical staff is organized and privileges of practice are available upon appointment by the Administrator.

The out-patient department is under the supervision of a physician and registered nurse. A good portion of its work is concerned with minor industrial surgery. During 1946, there were 5,278 out-patient visits reported.

**Norton General Hospital - See I-13 Regional Map:**

800 Park Avenue, Norton, Virginia - Dr. C. L. Harshbarger, Medical Director. This institution was opened in 1921 and is presently operated by Dr. C. L. Harshbarger. It has a designed capacity of 34 beds, 2 of which are reserved for the care of Negro patients. At the time of the survey, its rate of occupancy was reported as 82 per cent.

Its medical staff is organized and privileges of practice are available to all qualified physicians upon approval of the Medical Director.

The out-patient department is not organized; however, adequate services are provided by the Staff. During 1946, 9,988 ambulatory patients received services.

**Dr. Botts' Eye, Nose & Throat Hospital - See R-13 Regional Map:**

712 Virginia Avenue, Norton, Virginia - Dr. George W. Botts, Owner and Administrator. This allied special hospital was opened in 1937 and restricts its services to eye, ear, nose and throat patients.

It has a designed capacity of 38 beds. Adequate statistical information was not available at the time of the survey, and we were unable to determine the hospital's rate of occupancy or its average patient's stay. The hospital reserves 4 beds for the care of Negro patients.

#### **RURAL AREA NO. 14—SEE R-14 REGIONAL MAP:**

##### **St. Elizabeth's Hospital:**

Winonah Avenue, Pearisburg, Virginia, Clarence L. Cornett, Business Manager. This institution is owned and operated by Dr. W. C. Caudill and was opened in 1924. It has a designed capacity of 19 beds and reported a 100 per cent rate of occupancy. No definite number of beds are reserved for Negro patients.

The medical staff is not organized and the out-patient department functions of the institution are carried out by Dr. Caudill and his associate, Dr. Bagby.

#### **RURAL AREA NO. 17—SEE R-17 REGIONAL MAP:**

##### **Lee Memorial Hospital:**

Marion, Virginia - Dr. George A. Wright, President and Clinical Director. This 76-bed general hospital was opened in 1940, and during the year 1946, its rate of occupancy averaged 81 per cent. Four beds are reserved for the care of Negro patients.

The medical staff is organized, and privileges of practice are available to qualified physicians of the area.

The hospital operates no nursing school; and, therefore, must rely upon outside sources for this type of personnel.

Adequate services for ambulatory patients are provided on a 24-hour basis as there is no organized out-patient department.

##### **Mathieson Hospital - See R-17 Regional Map:**

Saltville, Virginia. This institution has a designed capacity of 17 beds, 1 of which is reserved for the care of Negro patients. It is owned and operated by the Mathieson Alkali Works and was opened in 1925. During 1946, its reported rate of occupancy was 66.5 per cent.

The medical staff of the hospital is unorganized; however, privileges of practice are available to qualified physicians of the area.

#### **RURAL AREA NO. 18—SEE R-18 REGIONAL MAP:**

##### **Chitwood-Moore Clinic:**

Main Street, Wytheville, Virginia - Dr. E. M. Chitwood, Administrator. This facility, with a designed capacity of 11 beds, is

operated on a partnership basis and was opened in June, 1936. Only white patients are admitted, and during 1946, its rate of occupancy averaged 32.5 per cent.

The staff is composed of 12 general practitioners who perform essential professional services.

#### **Wytheville Hospital - See R-18 Regional Map:**

355 South Fourth Avenue, Wytheville, Virginia - Dr. W. E. Malin, Hospital Director. The Potomac Conference of Seventh Day Adventists opened this institution September 2, 1945, and it is presently operated by the Wytheville Hospital Corporation. It has a designed capacity of 36 beds and a reported rate of occupancy of 48 per cent. This low rate of occupancy is apparently due to the short time for which the hospital has been in operation.

The medical staff of the hospital is open. Privileges of practice are restricted to the active staff.

The Malin Medical Corporation, a separate organization, performs the out-patient activities of the hospital.

The hospital is situated in a growing community and has prospects of a continuing future.

#### **RURAL AREA NO. 19—SEE R-19 REGIONAL MAP:**

##### **Pulaski Hospital, Inc.:**

This institution was opened in 1926 by the Pulaski Hospital Corporation and has a designed capacity of 77 beds. Its rate of occupancy was reported as 85.6 per cent.

Privileges of practice are available to qualified physicians of the area upon approval by the Board of Directors, and term of appointment is limited to one year.

In February, 1947, a school for practical nurses was started, this being approved by the Virginia State Board of Nurse Examiners.

#### **RURAL AREA NO. 20—SEE R-20 REGIONAL MAP:**

##### **Waddell Hospital:**

Center Street, Galax, Virginia. Dr. R. L. Waddell opened this institution on September 21, 1945. The institution has a designed capacity of 39 beds and its rate of occupancy for 1946 was reported to be 38 per cent.

The medical staff of the hospital is unorganized; however, privileges of practice are available to qualified physicians of the community.

No organized out-patient department services are available.



**RURAL AREA NO. 23—SEE R-23 REGIONAL MAP:****E. C. Jamison Clinic:**

111 Main Street, Rocky Mount, Virginia. This facility has a designed capacity of 15 beds. Owned and operated by Dr. E. C. Jamison and Dr. J. T. Colley, it was opened in 1944. One bed is reserved for Negro patients. Its rate of occupancy for 1946 was reported as 30 per cent.

Dr. Jamison and Dr. Colley constitute the medical staff and operate on a partnership basis.

**RURAL AREA NO. 24—SEE R-24 REGIONAL MAP:****Stuart Hospital:**

Stuart, Virginia - Dr. W. C. Akers, Owner and Administrator. This institution, individually owned and operated by Dr. W. C. Akers, was opened in 1925. Additional beds were added in 1930 and 1935, and the hospital now has a designed capacity of 24 beds. Its rate of occupancy for 1946 was estimated to be 54 per cent.

The medical staff is not organized, and out-patient department services are furnished by Dr. Akers and his associate.

**RURAL AREA NO. 26—SEE R-26 REGIONAL MAP:****Clinchfield Hospital:**

Dante, Virginia - Mr. M. V. Damron, Business Manager. This hospital was established by the Clinchfield Coal Corporation and is owned and operated by the Clinchfield Beneficial Association. It has a designed capacity of 31 beds.

The medical staff consists of a chief surgeon and 4 camp directors, who assist the chief surgeon when necessary.

**Lebanon General Hospital - See R-26 Regional Map:**

Lebanon, Virginia - Dr. James W. Elliott, Administrator. This institution is operated on a partnership basis and was opened in 1931. It has a designed capacity of 25 beds. Its rate of occupancy was reported as 59 per cent for 1946.

The medical staff is not formally organized and there is no organized out-patient department.





## NERVOUS AND MENTAL HOSPITALS

Much has been written, and more has been said, about the conditions now existing in our state nervous and mental hospitals. The State Hospital Board and Commissioner are fully cognizant of the needs, and their efforts to improve the general situation have been hampered to a large extent by the unavailability of trained personnel, a low pay scale, and the high cost of construction.

Our survey reveals much the same conditions as have been previously reported. Generally speaking, the physical conditions of the buildings in which the patients are housed and treated are antiquated and outmoded. A large majority constitute public hazards and are not suited functionally according to the present day concept of medical care. The low pay scales and the consequent lack of trained personnel contribute to the poor housekeeping which was found to exist.

The conditions are known to the proper authorities and recently by executive order of the Governor, funds have been released for the renovation of certain buildings thought to be in greatest need of repair, and the pay scales have been increased wherein indicated. This will relieve the situation, but much still needs to be done.

The State Hospital Board is now in possession of plans and specifications for the complete transfer of the Eastern State Hospital to a new location, and the same applies to the Western State Hospital. Plans and specifications are also ready for replacement of existing buildings at other state institutions. The present high cost of construction makes immediate action in the over-all impossible. A full public understanding of the problem is required to obtain the best results.

In-so-much as conditions are approximately the same in each of the five state nervous and mental hospitals, the following descriptions will not contain remarks on an individual hospital basis.

The following descriptions are primarily related to statistical information showing an overcrowded condition and the need for additional beds. Contemplated plans of the State Hospital Board to establish Area Diagnostic Clinics are anticipated to greatly reduce the average patient stay in each of the five hospitals, and it is estimated that if such clinics were in effect at the present time, at least 10 per cent of all the patients now being treated could be released and returned to the custody of their families or guardians.

### Central State Hospital -

Petersburg, Virginia. This institution, owned and operated by the Commonwealth of Virginia, was first opened in 1869. It is operated exclusively for the care of Negro patients. It has a designed capacity of 3,210 beds, and its rate of occupancy based on its designed capacity for the year 1946 was 122 per cent. There were

4,865 patients treated with an average patient stay of 294 days. The medical staff is employed by the hospital, and at the time of the survey consisted of nine physicians.

#### **DeJarnette State Sanatorium -**

Staunton, Virginia. This institution was opened in 1932 and is owned and operated by the Commonwealth of Virginia. It has a designed capacity of 131 beds, but at the present time is operating 233 beds. All beds are reserved for the care of white patients, and the patients pay for services on a cost of service basis. For the year ended June 30, 1946, 609 patients were treated, with an average patient stay of 136 days. The rate of occupancy based on the designed capacity was 171 per cent. The medical staff is appointed by the State Hospital Board, and at the time of the survey it consisted of 2 physicians.

#### **Eastern State Hospital -**

Williamsburg, Virginia. This institution, oldest of all the presently operating hospitals in the United States, was opened in 1773. It has a designed capacity of 1,856 beds. At the time of the survey it was operating 1,893 beds. For the year ended June 30, 1946 the records indicate that 2,430 patients were treated, with an average patient stay of 273.7 days. Members of the medical staff are appointed by the State Hospital Board, and the services of the hospital are restricted to white patients. Several nursing schools in the general hospitals are affiliated with this institution in the service of psychiatry.

#### **Southwestern State Hospital -**

Marion, Virginia. This institution, established in 1887, is owned and operated by the Commonwealth of Virginia. It has a designed capacity of 1,175 beds. During 1946, 1,683 patients were treated, with an average patient stay of 277.6 days. The medical staff is appointed by the State Hospital Board, and at the time of the survey it consisted of five physicians.

#### **St. Albans Sanatorium -**

Radford, Virginia. This institution did not reply to the survey questionnaire.

#### **Tucker Hospital, Inc. -**

Richmond, Virginia. This private nervous and mental hospital was established by Dr. B. R. Tucker and opened in 1912. It is now owned and operated by Drs. Tucker, Masters and Shield. It has a designed capacity of 56 beds, all beds being reserved for the treatment of white patients. During 1946, 619 patients were treated, with an average patient stay of 31 days. Staff membership is restricted to the active staff, and at the time of the survey three physicians composed the membership of the staff.



**Westbrook Sanatorium -**

Richmond, Virginia. This institution did not reply to the survey questionnaire.

**Western State Hospital -**

Staunton, Virginia. This institution is owned and operated by the Commonwealth of Virginia. It has a designed capacity of 2,538 beds, all of which are reserved for the care of white patients. During 1946, 3,249 patients were treated, with an average patient stay of 275.8 days. The medical staff is appointed in the same manner as in the other state nervous and mental hospitals.

Two general hospitals in the state, both teaching institutions, have a special pavilion devoted to the care of acute nervous and mental patients, both of whose pavilions so specifically designated have more than ten beds reserved for this purpose.

The Medical College of Virginia Hospital in Richmond has 48 beds in its nervous and mental pavilion and for the year 1946 treated 500 patients, with an average patient stay of approximately 25 days.

The nervous and mental pavilion of the University of Virginia Hospital in Charlottesville is designed for 39 beds, and during 1946 a total of 505 patients were treated, with an average patient stay of approximately 24 days.

In each of these two nervous and mental departments of the teaching institutions the type of care is designed as herein above stated, for the acutely ill patients whose term of hospitalization is generally limited to a stay of from three to six weeks.

**TUBERCULOSIS SANATORIA**

There are 7 tuberculosis sanatoria operated in the state, 3 of which are state owned and operated, 3 are city owned and operated, and 1 is owned and operated by a non-profit association. The sanatoria have a combined designed capacity of 1,511 beds. In general, the same plan has been followed as with the general and mental hospital classification in the determination of usable bed facilities.

**Blue Ridge Sanatorium -**

Charlottesville, Virginia - Dr. Frank B. Stafford, Superintendent and Medical Director. This institution was opened in 1920 and is owned by the Commonwealth of Virginia and operated under the supervision of the State Department of Health.

During its period of operation a number of major additions in the form of new construction have taken place, until at the present time the hospital has a designed capacity of 370 beds. During 1946, 654



patients were treated for an average patient stay of 167 days. The hospital's rate of occupancy averaged 81 per cent.

The medical staff of the hospital at the time of the survey was composed of 6 active staff members and 5 residents. Their appointment is subject to the approval of the Superintendent and Medical Director.

The hospital operates a School of Nursing which is approved by the Virginia State Board of Nurse Examiners, and during 1946 there was an average of 9 students enrolled. The school offers a 2-year course, and the students enter the School of Nursing at either the University of Virginia or the Medical College of Virginia Hospital for their third year of training.

The sanatorium, being situated geographically near the University of Virginia Hospital, is affiliated with the Department of Medicine of the University, and third year medical students come regularly for instruction in tuberculosis and other common chest diseases.

Facilities of the institution are restricted to white residents of the State of Virginia.

#### **Catawba Sanatorium -**

Roanoke, Virginia - Dr. James Benton Nicholls, Superintendent. This institution, opened in 1909, is owned by the Commonwealth of Virginia and is operated under the supervision of the State Department of Health. It has a designed capacity of 400 beds. During 1946, 666 patients were treated, and the average patient stay was 168 days. The institution's rate of occupancy was 76 per cent based on an average census of 308 patients.

The School of Nursing is approved by the Virginia State Board of Nurse Examiners and accredited by the National League of Nursing Education and is operated by the sanatorium. Its average enrollment is approximately 15 students. The school is affiliated with the Medical College of Virginia Hospital and the University of Virginia Hospital in the services of surgery, pediatrics and obstetrics.

Members of the medical staff are appointed by the superintendent with the approval of the State Health Department. Their term of appointment is indefinite.

Facilities of the institution are restricted to white residents of the State of Virginia.

#### **Charles R. Grandy Sanatorium -**

(Including Henry Wise Hospital) Norfolk, Virginia - Dr. M. F. Brock, Medical Director. This institution was established and is owned by the City of Norfolk. It is operated under the supervision of the Department of Public Health of the City of Norfolk. It has a designed capacity of 165 beds. At the present time, however, not all

of these facilities are being used, several spaces formerly allotted to patients having been assigned to employees. During 1946, 274 patients were treated for an average patient stay of 181 days. The institution's rate of occupancy averaged 82 per cent.

The Physician in Charge is appointed by the Department of Public Health of the City of Norfolk, and his term of appointment is indefinite.

No school of nursing is operated in conjunction with the sanatorium.

### **Hilltop Sanatorium -**

Danville, Virginia - Mrs. Elizabeth Page, Superintendent. This institution was opened in 1915 and is owned and operated by the Anti-tuberculosis League of Danville, Virginia, a non-profit association. It has a designed capacity of 36 beds. During 1946 a total of 93 patients were treated for an average patient stay of 117.7 days. Its rate of occupancy averaged 83 per cent.

Membership on the medical staff is restricted, and appointments are made subject to election by the Board of Directors. At the time of the survey the professional responsibilities were carried on by one physician.

### **Piedmont Sanatorium -**

Burkeville, Virginia - Dr. Charles W. Scott, Superintendent and Medical Director. Opened in 1918, this institution is owned by the Commonwealth of Virginia and is operated under the supervision of the State Department of Health. It has a designed capacity of 269 beds, all of which are reserved for the care of Negro patients.

During 1946 a total of 479 patients were treated for an average patient stay of 179.7 days. The institution's rate of occupancy was 87.5 per cent.

Appointments of the medical staff are made by the Superintendent subject to the approval of the State Health Commissioner.

The School of Nursing operated by the sanatorium has an average enrollment of 28 students. It is approved by the Virginia State Board of Nurse Examiners and is affiliated with the St. Philip Hospital (a unit of the Medical College of Virginia Hospital) in surgery, obstetrics, pediatrics and operating room techniques.

### **Pine Camp Hospital -**

Richmond, Virginia. This hospital is owned by the City of Richmond and operated by the Department of Public Health of the City of Richmond, Virginia. It has a designed capacity of 220 beds. During 1946 a total of 364 patients were treated for an average patient stay of 158 days. Its rate of occupancy averaged 71.7 per cent.

Staff members are appointed by the Director of Public Health, and their terms of appointment are indefinite.

**Roanoke City Sanatorium -**

Roanoke, Virginia - Dr. Fred F. Oast, Acting Medical Director. This institution is owned and operated by the City of Roanoke. It was opened in January, 1940. It has a designed capacity of 51 beds and both white and negro patients are admitted. During 1946 there were 52 patients treated on an average patient stay of 185 days. The hospital's rate of occupancy was 52 per cent for the year.

**PUBLIC HEALTH CENTERS**

A public health center, as defined by the U. S. Public Health Service regulations, is "A publicly owned facility utilized by a local health unit for the provision of public health services, including related facilities, such as laboratories, clinics, and administrative offices operated in connection with public health centers." A description of the facilities used by the State Health Department is as follows, descriptions being limited to county units:

**TABLE XLI**  
**EXISTING PUBLIC HEALTH CENTERS AND LOCAL**  
**HEALTH SERVICES**

| Health Department and Location               | Public or Privately Owned | Admin. Offices | Lab | Clinic Facilities | X-Ray |
|----------------------------------------------|---------------------------|----------------|-----|-------------------|-------|
| Albemarle-Charlottesville<br>Charlottesville | Privately                 | yes            | no  | yes               | no    |
| Alleghany<br>Covington                       | Publicly                  | yes            | no  | yes               | no    |
| Botetourt<br>Fincastle                       | Privately                 | no             | no  | yes               | no    |
| Amelia<br>Amelia<br>Court House              | Publicly                  | no             | no  | yes               | no    |
| Goochland<br>Goochland<br>Court House        | Publicly                  | no             | no  | yes               | no    |
| Powhatan<br>Powhatan<br>Court House          | Publicly                  | yes            | no  | yes               | no    |



TABLE XLI—Continued

| Health Department and Location        |          | Public or Privately Owned | Admin. Offices | Lab | Clinic Facilities | X-Ray |
|---------------------------------------|----------|---------------------------|----------------|-----|-------------------|-------|
| Amherst<br>Amherst<br>Court House     | District | Publicly                  | no             | no  | no                | no    |
| Charlotte<br>Charlotte<br>Court House |          | Publicly                  | no             | no  | yes               | no    |
| Campbell<br>Rustburg                  |          | Publicly                  | yes            | no  | yes               | no    |
| Arlington<br>Arlington<br>Court House |          | Publicly                  | yes            | yes | yes               | yes   |
| Augusta<br>Staunton                   |          | Publicly                  | yes            | no  | yes               | no    |
| Brunswick<br>Lawrenceville            | District | Publicly                  | yes            | no  | yes               | no    |
| Greensville<br>Emporia                |          | Publicly                  | no             | no  | yes               | no    |
| Mecklenburg<br>Boydton                |          | Privately                 | no             | no  | yes               | no    |
| Buchanan<br>Grundy                    |          | Privately                 | no             | no  | yes               | no    |
| Tazewell<br>Richlands                 |          | Privately                 | yes            | no  | yes               | no    |
| Tazewell<br>Tazewell                  |          | Privately                 | no             | no  | yes               | no    |
| Chesterfield<br>Chesterfield          |          | Publicly                  | yes            | no  | yes               | no    |
| Fairfax<br>Fairfax                    |          | Publicly                  | yes            | no  | yes               | yes   |
| Fauquier<br>Warrenton                 | District | Privately                 | no             | no  | no                | no    |
| Prince William<br>Manassas            |          | Privately                 | yes            | no  | yes               | yes   |
| Stafford<br>Stafford<br>Court House   |          | Publicly                  | no             | no  | yes               | no    |



TABLE XLI—Continued

| Health Department and Location       |            | Public or Privately Owned | Admin. Offices | Lab | Clinic Facilities | X-Ray |
|--------------------------------------|------------|---------------------------|----------------|-----|-------------------|-------|
| Giles<br>Pearisburg                  | } District | Privately                 | no             | no  | yes               | no    |
| Montgomery<br>Christiansburg         |            | Privately                 | yes            | no  | yes               | no    |
| Radford City<br>Radford              |            | Publicly                  | no             | no  | yes               | no    |
| Halifax<br>South Boston              | } District | Publicly                  | yes            | no  | yes               | no    |
| Pittsylvania<br>Chatham              |            | Publicly                  | no             | no  | yes               | no    |
| Hanover<br>Ashland                   | } District | Privately                 | yes            | no  | yes               | no    |
| Caroline<br>Bowling Green            |            | Publicly                  | no             | no  | yes               | no    |
| Henrico<br>R.F.D. no. 14<br>Richmond |            | Publicly                  | yes            | no  | yes               | no    |
| Loudoun<br>Leesburg                  |            | Publicly                  | yes            | no  | yes               | no    |
| Accomack<br>Accomac<br>Court House   | } District | Privately                 | no             | no  | yes               | no    |
| Northampton<br>Eastville             |            | Publicly                  | yes            | no  | yes               | no    |
| Orange<br>Orange                     |            | Privately                 | yes            | no  | yes               | no    |
| Isle of Wight<br>Smithfield          | } District | Privately                 | no             | no  | yes               | no    |
| Nansemond<br>Suffolk                 |            | Privately                 | yes            | no  | yes               | yes   |
| Southampton<br>Courtland             |            | Publicly                  | no             | no  | yes               | no    |
| Norfolk<br>Portsmouth                |            | Privately                 | yes            | no  | yes               | no    |
| Princess Anne<br>Virginia Beach      |            | Publicly                  | no             | no  | yes               | no    |

TABLE XLI—Continued

| Health Department and Location              |          | Public or Privately Owned | Admin. Offices | Lab | Clinic Facilities | X-Ray |
|---------------------------------------------|----------|---------------------------|----------------|-----|-------------------|-------|
| Page Luray                                  | District | Publicly                  | yes            | yes | yes               | no    |
| Warren Front Royal                          |          | Privately                 | no             | no  | yes               | no    |
| Shenandoah Woodstock                        |          | Privately                 | no             | no  | yes               | no    |
| Charles City<br>Charles City<br>Court House | District | Publicly                  | no             | no  | no                | no    |
| Elizabeth City Hampton                      |          | Publicly                  | no             | no  | yes               | yes   |
| James City Williamsburg                     |          | Publicly                  | no             | no  | yes               | no    |
| New Kent Providence Forge                   |          | Privately                 | yes            | no  | yes               | no    |
| Warwick Hilton Village                      |          | Publicly                  | yes            | no  | yes               | no    |
| York Yorktown                               |          | Publicly                  | no             | no  | yes               | no    |
| Pulaski Pulaski                             | District | Privately                 | yes            | no  | yes               | no    |
| Wythe Wytheville                            |          | Privately                 | no             | no  | yes               | no    |
| Rockingham Harrisonburg                     |          | Publicly                  | yes            | no  | yes               | no    |
| Rockbridge Lexington                        |          | Privately                 | yes            | no  | yes               | no    |
| Russell Lebanon                             | District | Privately                 | no             | no  | yes               | no    |
| Wise Norton                                 |          | Privately                 | yes            | no  | yes               | no    |
| Smythe Marion                               | District | Privately                 | no             | no  | yes               | no    |
| Washington Abingdon                         |          | Privately                 | yes            | yes | yes               | no    |
| Bristol City Bristol                        |          | Publicly                  | no             | no  | yes               | no    |

TABLE XLI—Continued

| Health Department and Location             |          | Public or Privately Owned | Admin. Offices | Lab | Clinic Facilities | X-Ray |
|--------------------------------------------|----------|---------------------------|----------------|-----|-------------------|-------|
| Buckingham<br>Buckingham Court House       | District | Publicly                  | no             | no  | yes               | no    |
| Cumberland<br>Cumberland Court House       |          | Publicly                  | no             | no  | yes               | no    |
| Nottoway<br>Nottoway Court House           |          | Publicly                  | no             | no  | yes               | no    |
| Prince Edward<br>Farmville                 |          | Publicly                  | yes            | no  | yes               | no    |
| Surry<br>Surry Court House                 |          | Privately                 | no             | no  | yes               | no    |
| Prince George<br>Prince George Court House |          | Publicly                  | no             | no  | yes               | no    |
| Sussex<br>Stony Creek                      |          | Privately                 | yes            | no  | yes               | no    |
| Dinwiddie<br>Dinwiddie                     |          | Publicly                  | no             | no  | yes               | no    |



### CHRONIC DISEASE HOSPITALS

A chronic disease hospital, as defined by the U. S. Public Health Service regulations, is "A hospital, the primary purpose of which is medical treatment of chronic illness, including the degenerative diseases, and which furnishes hospital treatment and care, administered by or under the direction of persons licensed to practice medicine in the State. The term includes such convalescent homes as meet the foregoing qualifications. It excludes tuberculosis and mental hospitals, nursing homes, and also institutions, the primary purpose of which is domiciliary care." Actually, the survey revealed no hospital the operation of which completely meets the definition as described above. There are two institutions, however, owned and operated by city governments, which are worthy of mention in that their services constitute a portion of those generally thought of as being defined in hospitals of this type.

Richmond City Home, owned and operated by the City of Richmond for the indigents of the city, reported 282 beds reserved for this classification. Of the 282 beds, 250 are designed for general medical cases, 20 for contagious diseases, and 12 for venereal diseases.

The Norfolk Municipal Hospital is operated by the Department of Public Welfare of the City of Norfolk for the care of the aged and infirmed who have no other means of meeting their support.

The hospital has a capacity of 400 beds, 180 of which are reserved for the care of Negro patients.



## **Chapter Four**

### **BASIC CONSIDERATION IN ESTIMATING NEED FOR HOSPITAL BEDS**





## BASIC CONSIDERATION IN ESTIMATING NEED FOR HOSPITAL BEDS

Two basic considerations in estimating the number of hospital beds required to provide adequate facilities in an area or in a state are (1) the number of occupied beds needed and (2) the size of individual hospital units.

Ordinarily in estimating the number of beds needed, an "accepted" ratio, such as 4 beds per 1,000 population, is applied to the area under consideration. The "accepted" ratio may or may not be adequate. It is an arbitrary figure based entirely upon judgment. A better basis of measurement is needed.

## FORMULA FOR ESTIMATING NEED FOR GENERAL HOSPITAL BEDS

The need for general hospital beds in any area is dependent upon the amount of current and prospective sickness which requires hospitalization. Unfortunately, extensive data on sickness are rarely available, surveys of sickness are expensive and it is difficult to show definite relationships between sickness data and need for hospital beds. Therefore, some other approach to the problem has been sought.

It is now thought that the need for hospital beds is closely related to the incidence of births and deaths; that is, the number of general hospital beds needed per 1,000 population is thought to be directly proportional to the crude birth and death rates. For each birth one bed is needed for an average length of stay of about 11 days. This would require about 3 occupied beds per year for each hundred births — or 4 beds at 75 per cent occupancy. If a different length of stay were assumed, the number of beds needed per birth would vary proportionately.

### The Bed-Death Ratio

Hospital and vital statistics show, for the country as a whole, that the public uses about 250 days of general hospital care for each death and correlated sickness in a general hospital. This relationship may also be expressed in terms of occupied beds per death by dividing 250 by 365, which equals .685, or about .7. This is the **bed-death ratio**. It signifies that for each hospital death seven-tenths of a bed is used for one year. The practical value of this ratio lies in using it as a prediction factor, for estimating how many additional hospital beds would be needed if additional deaths (and correlated sickness) were hospitalized.

The validity of using the bed-death ratio as an estimating factor lies in the fact that the ratio varies little from state to state. Because

the ratio of occupied beds to hospital deaths in most typical general hospitals is about the same as state averages, the bed-death ratio might be used in estimating the number of occupied beds needed in local areas and in specific communities.

### Variations in the Ratio.

The fact that not all areas and communities have the same bed-death ratio is due to two major types of factors: (1) errors in the data from which ratios are calculated; and (2) differences in local conditions, such as nature of illness, conditions or medical practice, et cetera, which have some real influence on the bed-death ratio. The first factor may be eliminated eventually by finding and using more accurate and comparable original data. However, the second means that some areas and probably many communities will have their own distinctive bed-death ratios. Further study is needed to reveal all of the factors involved in the variations of the bed-death ratio.

The bed-death ratio varies considerably among individual hospitals. Because a certain amount of this variation is of a random character, the bed-death ratio for an individual hospital should be based upon several years' records.

The bed-death ratio expresses the relationship between the length of stay and the hospital death rate. A length of stay of 10 days and a hospital death rate of 4 per cent, therefore, mean that for each death there were 250 days of service and that during the year, seven-tenths beds were used for each death—a bed-death ratio of .7. Any change in the length of stay or the hospital death rate will change the bed-death ratio. As the length of stay increases (death rate remaining the same), more beds will be needed; but as the hospital death rate increases (length of stay remaining the same), fewer beds will be needed. Increases in both length of stay and death rate would tend to cancel the effect of one factor upon the other in determining the bed-death ratio. This condition might be expected as the age level of the population rises.

The bed-death ratio will change from time to time, but it will undoubtedly not fluctuate radically over short periods of time. If it changes at all, it will likely be at a slow rate upward. As medical science improves, lives of both young and old people will be saved and much sickness prevented. Yet, this phenomenon will only delay, not prevent, ultimate serious illness and death. It is unrealistic to assume that the time will come in the foreseeable future when there will be a very low ratio of illness to mortality.

### Use of the Bed-Death Ratio in Virginia.

The use of the bed-death ratio in estimating need for hospital beds is simple. **The number of occupied beds needed is the product of the bed-death ratio times the number of deaths expected to be hospitalized.** We say "expected" because not all deaths can be

hospitalized. Some deaths occur suddenly and many others occur under conditions not requiring general hospital care. Therefore, even though the number of deaths may be known, the determination of the number of deaths **expected to be hospitalized** is a matter of judgment. In 1936, 25.8 per cent of all deaths in Virginia occurred in general and allied special\* hospitals. In 1944, the percentage was 36.5, an increase of 10.7 per cent in eight years. At present, 50 per cent of all deaths occur in general hospitals in some states and the percentage is even higher in some smaller areas and in some cities.

\* Including mental and tubercular hospitals.

A reasonable goal for Virginia, a figure to be achieved during the next 15 or 20 years, should be higher than any large area in the state has achieved at the present time, but not so high that it is beyond reasonable limits of achievement.

For the state as a whole, it would seem that we should strive for an average level of hospitalization whereby at least 50 per cent of all deaths and correlated sickness would occur in general and allied special hospitals. An additional 8 to 10 per cent would occur in other types of hospitals and institutions. The death rate in Virginia (average 1942 to 1944) was about 10.2, 50 per cent of which is 5.1. The number of occupied beds per thousand people "needed" in the state, therefore is .663 (Virginia bed-death ratio) times 5.1 which equals 3.37 (occupied beds). If an occupancy rate of 75 per cent is assumed, then the total beds needed per thousand would be 4.76. This would require an increase of about 42.2 per cent in the number of general and allied special hospital beds in Virginia.

A similar procedure could be used in estimating beds needed in sections of the state. However, some sections have much further to go in hospitalization than other sections. It might be well, therefore, to set different goals for each section, goals that could be reached within a 10 or 15 year period. Then, as the building program progresses, new and higher goals might be set from time to time.

### **Application of the Formula.**

The formula will provide a general estimate for use in determining the need for beds in small communities; but several other factors must be considered. The formula shows needs of residents only. It throws no light on the extent to which residents of a small community will seek hospitalization in nearby larger centers. Because death and birth rates fluctuate widely in small areas, computations should be based on several years' records of deaths and births. The bed-death and bed-birth ratios need not be calculated for every community, unless there is conclusive evidence that a local community has unique conditions. It is best to use general bed-death and bed-birth ratios which are based on hospital statistics for the entire state or a large region within the state.



The formula is applicable only to general and allied special hospital beds. Similar formulas can be developed for determining need for special types of hospitals.

This formula does not provide a complete answer to the problem of estimating need for hospital beds. It should not and cannot take the place of careful consideration of many local factors which enter into determining need. However, the formula does provide a reasonable approximation. It provides a better basis for consideration of need than does the old method of assuming arbitrarily some general ratio, such as three or four beds per 1,000 population. It allows for variations in need in different sections of the state.

### THE BED OCCUPANCY RATE IN GENERAL HOSPITALS

The extent to which it may be anticipated that the beds in a general hospital will be used is an important factor in hospital planning. The discussion which follows pertains only to general hospitals caring for acute conditions and does not pertain to special institutions, such as nervous and mental disease hospitals, tuberculosis sanatoria or hospitals for the chronic sick. The number of beds occupied by patients in relation to the total number of beds in a hospital is referred to as the percentage of occupancy or the bed occupancy rate. If this factor is not carefully estimated, a hospital may not meet the needs of the community. It may be too small or too large.

#### Normal Occupancy Rate.

There is no one occupancy rate which can be said to be "normal" for all sizes and types of hospitals. Occupancy rates vary according to size and type of hospital. Small hospitals usually have lower occupancy rates than do large hospitals. It has also been observed that long-stay (Chronic, nervous and mental, and tuberculosis) hospitals usually have higher occupancy rates than short-stay (maternity and acute illness) hospitals.

A general hospital should have sufficient beds to meet day-to-day and seasonal variations in demand for care. If a hospital is to serve its community adequately, it should neither turn patients away nor house them in room and hall space not constructed for patient use. Yet, hospitals cannot be expected to maintain a large number of reserve rooms to meet unpredictable demands which result from epidemics or catastrophes. Ideally, a general hospital should have enough beds so that under normal conditions it would be completely filled on only one or two days during the year.

The extent and character of the variation of the daily census of general hospitals may be studied both theoretically and factually. On the basis of the theory of probability and the normal curve, we can set up a working hypothesis concerning fundamental relationships between size of hospital and variations in the daily census. Then by comparing this hypothesis with the experience of general hospitals,



individually and collectively, we can modify the hypothesis and develop a simple formula for use in planning the size of general hospitals.

On the basis of both theory and experience, it has been found that the square root of the average daily census of a general hospital is a practical device which can be used to estimate the probable variation in the daily census. Both statistical theory and study of individual hospital data indicate that the extreme limits of occupied beds will not be greater or less than the average census plus or minus approximately four times the square root of the average daily census. That is to say, it is unlikely that the need for beds in the course of a year will exceed that average census by four times the square root of that average. Correspondingly, it is improbable that the minimum number of beds used will fall below the average census less four times the square root of that average. For example, in a hospital with an average daily census of 25 patients, the range in the daily census would be from 5 to 45 patients. If this hospital is to serve its community adequately, it should have about 45 beds. Between these extreme limits, the daily number of beds occupied will follow the normal curve.



## **Chapter Five**

### **SUMMARY AND RECOMMENDATIONS**





## SUMMARY AND RECOMMENDATIONS

### THE STATE PLAN

A major portion of the program concerned a very detailed study of the existing hospitals in the State. Of the 115 hospitals included in the survey, 96 were classified as "general", and the remainder included the nervous and mental hospitals and tuberculosis sanatoria.

At the time of the survey the general hospitals were operating 8334 beds although they were designed for a capacity of 7719 beds. The difference between those in operation and the designed capacity represents the tremendous pressure placed on present hospitals for increased bed capacity. Approximately 10 per cent of the existing beds were found in buildings which structurally and by design did not meet the minimum needs of the people. These beds were not included in the final count as being in use, thus creating an additional need within the area in which they exist.

These general hospitals treated over 254,000 patients during 1946 for a total of approximately two million days, or an average patient stay of 8.4 days. These hospitals averaged an occupancy of 76.11 per cent of their designed capacity, while the national average occupancy was generally accepted to be about 70 per cent.

One thousand three hundred fifty-six beds of those in operation were assigned to the care of the non-white population. These general hospitals were found to operate 1376 new born nursing beds which were occupied by slightly over forty thousand new born infants during 1946.

The survey revealed no beds specifically assigned in general hospitals for the care of chronic illnesses. Those assigned for the care of the contagious diseases, skin and cancer patients, tuberculosis and nervous and mental patients were by and large insufficient in numbers. The State Hospital Plan contains recommendations which, in part at least, will remedy this situation.

Studies reveal that Virginia within the next twenty years will require a total of approximately 12,745 general hospital beds, 6870 of which are existing and conform to a long range planning program. A deficit of 5875 exists, based on this computation, an area distribution of which appears in the following pages.

At the time of the survey the nervous and mental hospitals were operating a total of 9,234 beds, of which 5,386 were thought to be in need of replacement. Recommendations for this particular classification will also be found in subsequent pages of this report.

The tuberculosis sanatoria have a present capacity of 1,511 beds, 591 of these being in need of immediate replacement. As in the case of the general hospital and the nervous and mental hospital, recommendations for this classification are to be found in subsequent pages of this chapter.

The reader of this report will want to take into consideration the fact that this report is somewhat preliminary in nature, as it must be revised from time to time in light of changing conditions.

### **POLICY FOR DETERMINING NON-CONFORMING GENERAL HOSPITAL BEDS**

As has been the experience in a number of states, this office has undergone considerable difficulty in establishing a policy for the purpose of determining suitable versus unsuitable general hospital beds. A number of states have been consulted, and we have found there are as many different policies as states consulted.

At the outset, we do not think that criteria for determining unsuitable beds should be too stringent, due to the fact that local conditions greatly affect this policy, and the diversity of opinion makes no common approach possible.

However, in order to determine those beds in hospitals which we do not believe would conform to a long range plan and constructive program, the following policy has been established and, therefore, becomes a part of this State's Plan. General and allied special hospital beds located under the following conditions shall not be counted as a part of the existing general hospital facilities in the State of Virginia.

- (a). Beds in hospitals whose present structures make it unsafe or unsound for vertical or horizontal additions. (This will include a number of conditions, such as hospitals whose structures create a public hazard, whose physical location is such that there is no room for proper expansion, or where there might be conditions existing not consistent with accepted hospital requirements, i.e., traffic noises, industrial odors, airports, or railroads.)
- (b). Hospitals under fifteen beds. (Generally, one does not find in institutions of this size proper space for the diversification of medical services or departmental functions commensurate with the modern general hospital.

# MARKETING MAP OF

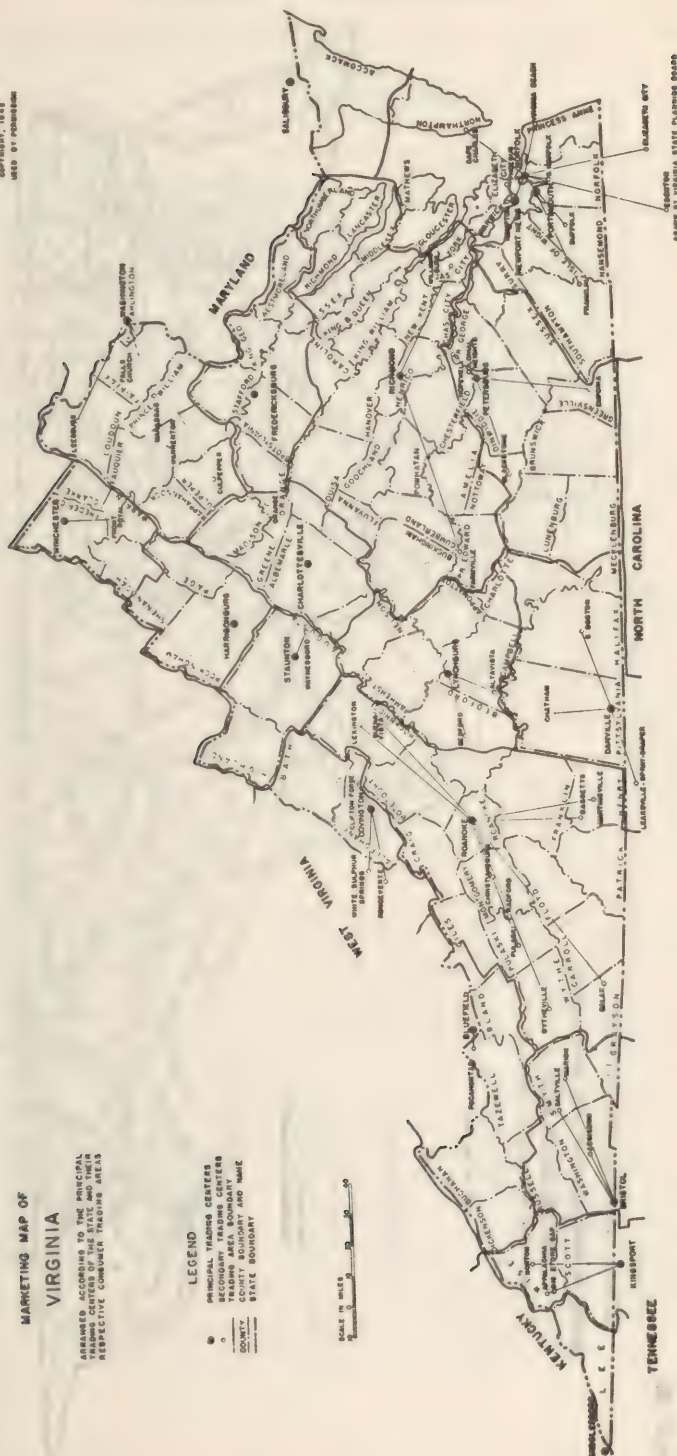
## VIRGINIA

PREPARED ACCORDING TO THE PRINCIPAL  
TRADING AREAS OF THE STATE AND THEIR  
RESPECTIVE CONSUMER TRADING AREAS

### LEGEND

- PRINCIPAL TRADING CENTERS
- SECONDARY TRADING CENTERS
- TRADING AREA BOUNDARY
- COUNTY BOUNDARY AND NAME
- STATE BOUNDARY

SCALE IN MILES  
0 10 20 30 40



DETERMINED AND ARRANGED BY  
HEARST MAGAZINES INC.  
SEPTEMBER, 1948  
REISSUE OF PREVIOUS EDITION







MAP 31

# COMMONWEALTH OF VIRGINIA GENERAL HOSPITAL SERVICE AREAS

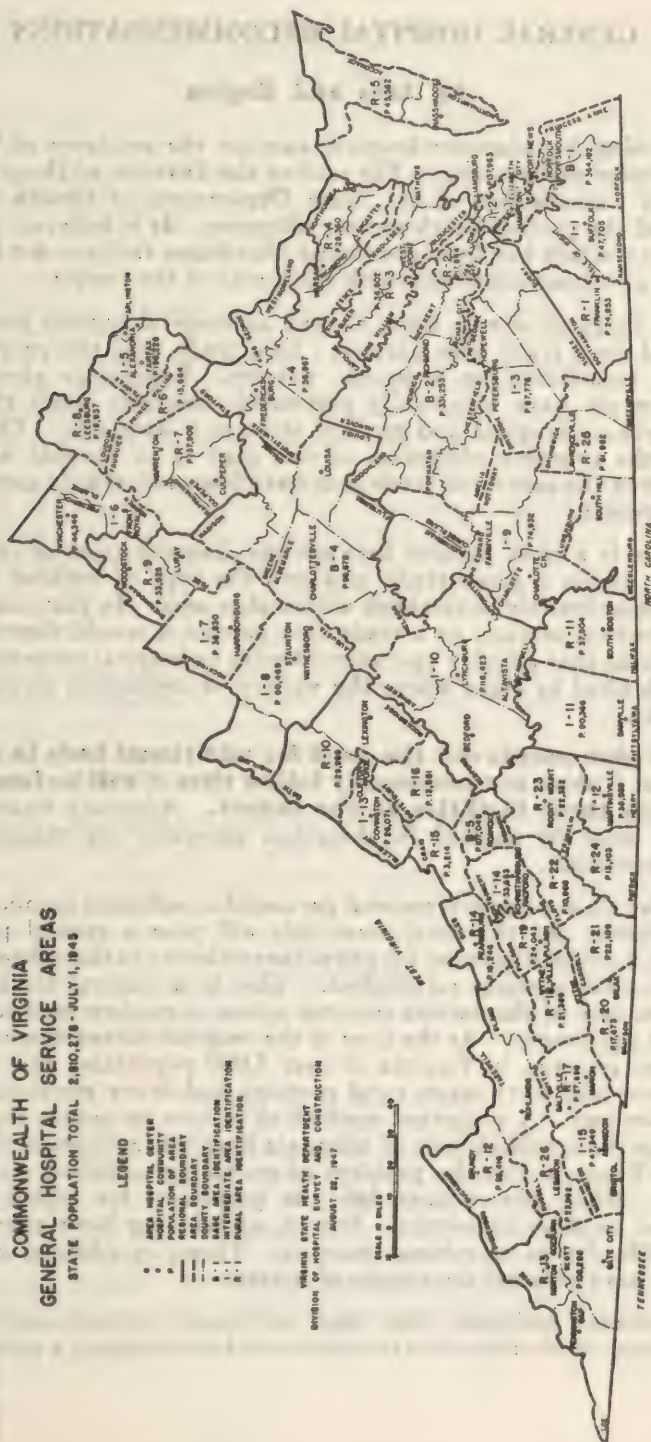
STATE POPULATION TOTAL 2,800,278 - JULY 1, 1943

## LEGEND

- AREA IDENTIFICATION
- HOSPITAL CENTER
- POPULATION OF AREA
- REGIONAL BOUNDARY
- COUNTY BOUNDARY
- BASE AREA IDENTIFICATION
- BASE AREA IDENTIFICATION
- BASE AREA IDENTIFICATION

VIRGINIA STATE HEALTH DEPARTMENT  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 22, 1947

SCALE IN MILES  
0 10 20



TENNESSEE

NORTH CAROLINA

## GENERAL HOSPITAL RECOMMENDATIONS

### by Area and Region

Planning for adequate hospital care for the residents of Virginia is a complex undertaking. The staff of the Division of Hospital Survey and Construction of the State Department of Health has approached the problem with utmost diligence. It is believed that the state plan which has been developed distributes facilities for hospital care in a manner consistent with the needs of the people.

The hospital service areas as well as hospital regions have been designed on a trade area pattern. In a trade area the people have already established an economic pattern. Experience shows that where people have historically purchased consumer goods they will also purchase hospital and medical services if available. Therefore, one of the principle objectives of this plan is to provide adequate facilities in the centers of trade that have been voluntarily established by the people.

There is a close parallel between the diversification of consumer services within a given trade area and the type of medical services available or feasible to establish within that area. In planning hospital or medical services on a trade area pattern it would therefore not be expected that a highly specialized health or hospital program would be established in areas where the variety of consumers services was not great.

**The plan points out the need for additional beds in a given area but it does not necessarily follow that it will be feasible to establish these facilities at the outset.** Adequate financial resources must be assured for hospitals generally are plagued with deficit operation.

Above all, trained professional personnel in sufficient numbers must be available. In the rural areas this will pose a critical problem. There is a continuing trend for physicians to locate in the urban centers near hospitals already established. This is a natural tendency as adequate care of the patient requires access to modern medical facilities and equipment. At the time of the hospital survey there were at least two counties in Virginia of over 5,000 population that had no physicians and forty-seven rural counties had fewer physicians than five years ago. A suggested method to reverse or reduce this trend would be the establishment of adequate hospital facilities in the rural areas. There is also the problem of providing sufficient nurse personnel. Many nurses have left the profession for higher paying positions in other industries. Schools of Nursing have experienced great difficulty in recruiting students. These, in addition to other factors, have reduced the supply of nurses.

Experience indicates that there are many fundamental factors which need to be taken into consideration in developing a program to

provide sufficient hospital beds for a given hospital service area. Among these factors are: length of stay; percent of occupancy; scope of services offered; density of population; and isolation of the area.

The average length of stay of a patient influences the need for additional beds. As the length of stay increases there is a correspondingly greater need for additional beds to accommodate those patients that might have been admitted if a more rapid turnover had occurred. Above the average patient stay is characteristic of those areas containing teaching hospitals. The special services offered by these institutions tend to increase the average length of stay. Thus, average length of stay of the two teaching hospitals in Virginia, the University of Virginia Hospital and the Medical College of Virginia Hospital Division in 1946 was 12.0 and 14.5 days respectively, while the average patient stay for the state as a whole was 8.4 days. This condition does not preclude the existence of special services in other general hospitals but is characteristic of teaching institutions.

As the density of population increases there is a corresponding increase in the need for hospital beds. Industrial characteristics of the area and the predominance of prepaid hospital and medical care plans serve as an index to the number of beds needed.

Areas in which there occur peak seasonal populations must have adequate beds to care for the peak load.

The scope of services to be offered, the existing percent of occupancy, the remoteness of the area and the beds in need of replacement are among other factors related to adequate planning. All have been taken into consideration in the distribution of general hospital beds for the people of Virginia.

A brief description of the general hospital facilities planned in this report by region and by area follows. The recommendations are based on the assumption that the localities together with the State Agency will apportion the beds on a basis of need without discrimination as to race, creed or color. The data upon which this apportionment can be based is to be found in the narrative section of this report under the chapter "The People of Virginia." It should also be stated that the recommendations contained herein envisage the estimated need on a 15 to 20 year basis.

### NORFOLK REGION

The Norfolk Region is made up of nine and one-half counties and includes the Eastern Shore, four counties in the Southeast and Elizabeth City, Warwick and half of York county. The total population in 1945 was 620,265, of which 32.8 per cent was non-white. It is the only hospital region in the state in which the greater portion of the population is urban. In 1945, 50.5 per cent of the population lived in cities and towns of over 2,500 population, and 49.5 per cent in rural areas.



The area around Norfolk, Warwick and Elizabeth City is highly industrialized. Industry had a large growth during the war but has since dropped to some degree toward pre-war levels. Hampton Roads Port and shipyards in the area were largely responsible for this growth. The other counties in the region are chiefly rural with truck gardening, the production of cotton and peanuts, and timber cutting the leading activities. Around the Chesapeake Bay, oyster beds and fishing are important industries. Potatoes and vegetables are leading crops on the Eastern Shore, which also has a large poultry industry.

The region has a high population density and a large percentage of Negroes, particularly in Southampton, Isle of Wight and Nansemond counties. Birth rates are low, except in Southampton County, and infant mortality rates high, except in the urban counties. The white infant mortality rates are high in Isle of Wight and in Nansemond counties. Non-White infant mortality rates are high in Nansemond, Southampton and the two counties of the Eastern Shore.

Per capita income is higher than in most of the other regions, particularly in the three urban counties. Relatively few farm operators have gross farm incomes under \$600 annually, with the exception of those in Norfolk and York counties. Rural levels of living are high, except in Nansemond and Southampton.

### AREA-B-1

The counties of Norfolk and Princess Anne with a population of 364,182 comprise this hospital service area. There are at present six general hospitals with a designed capacity of 1233 beds. Two of the hospitals are located in Portsmouth and four in Norfolk. The latter city has been designated as the area hospital center as well as the regional hospital center.

The peak seasonal populations of the community as a resort area, its density of population, and its geographical situation indicates the need for a minimum of 6.5 beds per thousand population or a total of 2,367 beds. This creates a present deficit of 1,134 beds which have been allotted in the following manner: Norfolk 851 for a future capacity of 1,734 beds and Portsmouth 283 for a future capacity of 633 beds.

### AREA-I-1

This area is composed of the Counties of Nansemond and Isle of Wight with a population of 47,705. Suffolk is the area hospital center and at the present time has three general hospitals with a capacity of 107 beds. The survey suggests a need for a total of 190 beds in one hospital. Should the interests of those three institutions be combined and a new hospital constructed with a minimum of 150 beds at the outset, it is felt that the best interest of the people will be served.



## AREA-I-2

The counties of Warwick, Elizabeth City and the southeastern portion of York compose this hospital service area and has an estimated population of 137,963. There are at present four general hospitals, three in Newport News and one in Hampton. One of the three in Newport News is operated for Negro patients. The hospitals in this area have a combined capacity of 517 beds. Except for one hospital the reported percents of occupancy are not indicative of a need for a sizeable expansion program. The survey suggests a need for a total of 552 beds all of which with the exception of those existing in Hampton, are being programmed for Newport News as it has been designated as the area hospital center and also represents the center of population.

## AREA-R-1

This area includes only Southampton County and has a population of 24,853. Franklin is the area hospital center and the existing hospital has a capacity of 51 beds. The survey shows a need for a total of 62 beds based upon 2.5 beds per thousand population.

## AREA-R-5

Nassawadox has been designated as the hospital center for the area which comprises Northampton and Accomack Counties. This area has a population of 45,562. In view of the geographical position of this area the population must rely largely on the one hospital for its medical needs. It is felt that in addition to the present 71 beds in Nassawadox, forty-three additional beds can be supported, making a total of 114 beds in this area.

## RICHMOND REGION

The Richmond Region, the largest of the proposed hospital regions, is composed of 31 counties in Middle Virginia, the Southeast and the Northern Coastal Plain. One-half of York County is assigned to the Richmond Region and one-half to the Norfolk Region. The population in 1945 was 638,719, of which 38.8 per cent was non-white, approximately 45 per cent urban and 55 per cent rural. Principal population centers are Richmond, the State Capital, in Henrico county; Petersburg, in Dinwiddie county; Hopewell, in Prince George county; and Williamsburg, in James City county.

Directly west of Richmond is an area of depleted land, in the past extensively used for growing tobacco, and now largely an area used for subsistence farming and forest products. (Urban in regional summaries refers to cities and towns of over 2,500 population. Rural refers to areas with population centers of less than 2,500.) Counties in this area, which include Buckingham, Cumberland, Goochland, Powha-

tan, Amelia and several counties which fall within the Charlottesville Region, are sparsely populated. They have a high percentage of non-whites and low per capita incomes. Birth rates are low and, except in Goochland County, infant mortality rates are above the average state rate. Rural levels of living in this area are low.

To the east of Richmond in the northern coastal plain is another area of depleted soil and sparse population, the old Tidewater section, formerly the site of many large plantations. There is a high percentage of non-whites in this area. General farming and truck gardening are the chief agricultural activities. Income from these sources are supplemented with lumbering work. Birth rates are low, and county infant mortality rates, with the exception of Middlesex, Mathews, New Kent and James City, are above the state average. White infant mortality rates are particularly high in Gloucester, Essex and King and Queen counties. Non-white infant mortality rates are high in the counties of the Northern Neck, Northumberland, Richmond and Lancaster. Per capita income is low in the area, particularly in Essex and King and Queen. In many of the counties, over 50 per cent of the farm operators have gross farm incomes of less than \$600 per year.

In the southeast section of the Richmond region is an area with a large concentration of non-white population. The counties of Dinwiddie, Brunswick, Greensville, Sussex, and Surry have over 55 per cent non-white population. General farming, the production of cotton, peanuts and lumbering are the chief occupations. Infant mortality rates are above the state average and are highest among non-whites. Per capita income, while low, is higher than in the other area of the region described above, and there are relatively few farm operators with gross farm incomes under \$600 per year. Rural levels of living are quite low.

The best-favored counties in social and economic indices in the Richmond region are the urban counties of Henrico and its neighbor, Chesterfield. A high percentage of those gainfully employed in these counties, as well as in parts of Hanover, Dinwiddie and Prince George, are engaged in non-farm work. The same is true of the counties bordering on the Chesapeake Bay and the Tidewater rivers where farming is supplemented by fishing and oystering.

## AREA-B-2

The city of Richmond has been designated to serve as the area hospital center for the counties of Hanover, New Kent, Charles City, Chesterfield, Goochland, Powhatan and Amelia. This area has a population of 331,253.

There are at present nine general hospitals (St. Philips and Dooley listed under Medical College of Virginia) with a combined capacity of 1,408 general hospital beds. The preponderance of participation in prepayment plans for medical and hospital care, the above average



length of stay of its teaching hospital and the density of its population suggest a minimum of 6.5 beds per thousand population. This indicates a total bed need of 2,153 or a net addition of 745 beds.

The Hospital Division of the Medical College of Virginia has been designated as the regional hospital. It is to this institution that out-lying hospitals might look for an organized and special consultation service.

The designation of this hospital as the regional center does not necessarily preclude participation of this program in the construction of an additional hospital in this area.

### AREA-I-3

Petersburg has been designated as the hospital center for the intermediate area comprising Dinwiddie, Prince George, Sussex and Surry Counties. This area has a population of 87,776. There are at present two general hospitals located in this section with a combined capacity of 109 beds; at Petersburg 90 beds and at Hopewell 19 beds.

The survey suggests the need for replacement of the hospital in Petersburg, as it is outmoded, with an institution to have a future capacity of 300 beds. The survey further suggests that an addition of 32 beds to the present hospital in Hopewell will adequately meet the need of the people. A substantial portion of this addition is nearing completion.

### AREA-I-9

The counties comprising this area are essentially rural. Included are Buckingham, Cumberland, Prince Edward, Charlotte, Lunenburg and Nottoway. Farmville is the intermediate area center and has at the present time 63 general hospital beds. There are 74,932 persons residing within this area. Because of its rather broad geographical expanse this section has been chosen for the establishment of a medical service center to have a capacity of ten beds. It should be designed for the adequate care of normal obstetrical patients, minor surgery and cases requiring overnight attention. It might well house the offices and facilities of the local health district. The administrative activities should be correlated with those of the area hospital center. This service center is one of the several planned on an experimental basis and others will follow if their operation proves successful. The main purpose of this facility in addition to the care of the sick should be to demonstrate how a health program can be developed with an existing intermediate area hospital.

To meet the estimated future requirements 237 additional beds will ultimately be needed in Farmville, making a total of 300 beds available.

### AREA-R-2

This area includes James City County and the upper portion of York County. It has a population of 17,844, although its peak tourist

population is in excess of this figure. Williamsburg is the area hospital center and at present has a hospital with a capacity of 18 beds. The survey suggests the need for an additional 27 beds to meet estimated future requirements.

### AREA-R-3

The counties of King William, King and Queen, Middlesex, Mathews and Gloucester are a newly created hospital service area. Heretofore there have been no hospital facilities in these counties although the need has been apparent for sometime.

West Point has been designated as the area hospital center. The survey suggests a need for a hospital with a future capacity of 92 beds. However, it is felt that at the outset a fifty bed institution will sustain the immediate needs. The institution should however be designed for economical expansion as the patient load might warrant.

### AREA-R-4

This area, a portion of which is generally referred to as the "Northern Neck" includes the Counties of Essex, Richmond, Lancaster and Northumberland. The combined Counties have a population of 28,360.

Warsaw has been designated as the area hospital center as it will be accessible to a greater number of people.

The survey suggests a need for a hospital with a future capacity of 71 beds. However, as in the case of Area R-3 it is felt that a 50 bed institution will suffice at the outset.

### AREA-R-25

The Counties of Greensville, Brunswick, and Mecklenburg compose this newly created hospital service area. The area has a population of 61,952 and is predominantly rural.

South Hill with its nearby industrial plants has been designated as the area center. The survey suggests the need for hospital facilities with a future capacity of 155 beds.

It is recommended that a fifteen bed medical service center be located in Lawrenceville. This proposed center in addition to caring for the normal obstetrical patient and the short term minor illness might well house the offices of the local health district. In addition to its primary functions as stated, it should demonstrate the development of a program of health and hospital care correlated with the establishment of the proposed new hospital for South Hill. In this connection it is suggested that the hospital in South Hill have a capacity of 50 beds at the outset with provisions for economical expansion as the patient load might require.



## NORTHERN VIRGINIA REGION

The Northern Virginia Region is composed of 10 counties, 3 of which are located in the Shenandoah Valley and 7 in the Northern Piedmont. The total population in 1945 was 315,083, of which only 14.5 per cent was non-white. It is primarily a farming region, with 77.2 per cent of the population classified as rural and 22.8 per cent classified as urban. The largest population centers are Alexandria and Arlington county and Winchester in Frederick county.

The three counties in Shenandoah Valley, Frederick, Clarke and Warren, are in the center of a great apple producing section. Live-stock and poultry are important industries. There is considerable industrial development in Frederick and Warren Counties. Per capita income is high, as are rural standards of living. Although there is a fairly large percentage of births in hospitals, white infant mortality rates in these counties are high.

The seven counties in the Northern Piedmont, which are included in the region, are Loudoun, Arlington, Fairfax, Prince William, Fauquier, Rappahannock and Culpeper. Arlington, the smallest county in Virginia, is entirely urban and serves as a residential district of Washington. Both Arlington and Fairfax county, which are adjacent to it, are heavily populated. Principal industries of the rural counties are farming and dairying. The area serves as a milk shed for the urban district around Washington. These counties, as a whole, have a fairly small number of non-whites, though more than the counties of the Shenandoah Valley. The highest percentage is found in Culpeper-31.5 per cent.

Birth rates are fairly low, particularly in Fairfax county. White infant mortality rates are low, except in Prince William. Non-white infant mortality rates are high in Rappahannock county. There is a good percentage of white births in hospitals in the area, except in Rappahannock and Culpeper counties. Non-white births in hospitals are high in Arlington and Fairfax, but low in the other counties.

### AREA-I-5

This area is composed of Arlington and Fairfax Counties and the City of Alexandria and is one of the most densely settled areas of Virginia. The three hospitals now being operated have a combined capacity of 306 beds.

The influence of the Metropolitan Area, the density of its population and its continuing growth suggests a minimum of 5.3 beds per thousand population or a future total of 960 beds.

Alexandria has been designated as the area hospital center and probably can eventually support an additional 327 beds (total 533.) Arlington is an existing hospital community and is recommended to have an additional 277 beds (total 377.)

It is also recommended that consideration be given toward the establishment of a fifty bed hospital in Fairfax Courthouse or some other satisfactory point in Fairfax County. At present the residents of this county must rely on the hospitals in Alexandria, Arlington or Washington for their medical needs. The establishment of this institution will not only relieve the pressure on these existing hospitals but will enable them to place in operation additional special services which under a regional system might well be their responsibility.

#### **AREA-I-6**

Winchester has been designated as the area hospital center for this intermediate area composed of Frederick, Warren and Clarke Counties. The area has a combined population of 44,346.

The survey suggests that this area will support a minimum of 4.6 beds per thousand population or 203 beds. It is recommended that consideration be given the replacement of the hospital in Front Royal. The survey shows a need for approximately 43 beds. No new construction under 50 beds capacity is recommended in this report. Therefore, it is proposed that the State Agency will participate in the construction of 43 of the 50 beds based on the area priority.

#### **AREA-R-6**

This area is composed of Prince William County with a population of 15,664. The county is essentially rural. Neither the size of the county nor its density of population suggests the need for general hospital facilities. As it could not factually be identified with an existing or proposed hospital service area, it is recommended that the county itself group with the area to which it feels most closely related.

#### **AREA-R-7**

Fauquier, Rappahannock and Culpeper Counties with a population of 37,908 are included in this service area. Culpeper has been designated as the area center and Warrenton as a hospital community. The survey suggests a need for a future capacity of 95 beds in this area. It is recommended that a fifty bed hospital be constructed in Culpeper and that 45 beds be programmed for Warrenton should the authorities of the present hospital eventually wish to replace the existing institution.

#### **AREA-R-8**

Loudoun County is the only county in this area. It has a population of 18,937. The survey suggests the need for a 21 bed addition to the present hospital in Leesburg with necessary alterations to the existing building.



## CHARLOTTESVILLE REGION

The Charlottesville Region is an area of 21 counties, including part of the Shenandoah Valley, a section of the Middle and Northern Piedmont and four counties of the Northern Coastal Plain. The total population in 1945 was 406,792, of which approximately 19 per cent was non-white. Counties with the highest percentages of non-whites in the population are Louisa, Fluvanna, Caroline and Westmoreland. Seventy-two per cent of the population of the region is rural and 27.8 per cent urban. The area is not homogeneous and can best be described by dividing it into four sub-areas.

1. The counties of Shenandoah, Page, Rockingham and Augusta are in the Shenandoah Valley, one of the richest farming areas in the state. Dairying, poultry, fruit and livestock are the principal agricultural activities. There is, also, considerable non-farm work. There are few non-whites in these counties—less than 5 per cent of the total population. Population centers are Staunton and Waynesboro in Augusta County and Harrisonburg in Rockingham. Birth rates in the area are low, and infant mortality rates are below the state average. Of the four counties, Rockingham has the largest percentage of deaths in hospitals; Augusta the fewest. Per capita income, as estimated by the University of Virginia Bureau of Population and Economic Research, is higher than in most of Virginia's rural areas, ranging from \$574 in Page to \$764 in Augusta. Except in some of the mountain coves, there are fewer farm operators with gross farm incomes under \$600 than in the state as a whole. Rural levels of living are high, particularly in Shenandoah County.

2. Adjacent to the area just described and included in the Charlottesville region is the more or less isolated county of Highland. Located in the section of the state often referred to as the Alleghany Ridges, it is sparsely populated, poor and low in many indices of health and medical care. The per capita income of Highland County is the lowest in the entire Charlottesville region, but rural levels of living are high. The population is almost entirely white. The birth rate is high and the infant mortality rate high. Few deaths occur in hospitals. There is no town of any size in the county.

3. The sections of the Middle and Northern Piedmont included in the Charlottesville region are largely areas of general farming. Part of these counties used to be included in the tobacco belt, which has since moved southward leaving depleted soil. There are more non-whites in this area than in the Shenandoah Valley, though most of the counties, with the exception of Louisa and Fluvanna, have populations less than 35 per cent non-white. Population centers in the Middle Piedmont are Lynchburg, Altavista, Bedford, and Charlottesville. Fredericksburg is the only city of any size in this section of the Northern Piedmont. There is considerable industrial development around each of these cities. Birth rates are low, except in Nelson, Greene and Campbell Counties. Albemarle, Greene, Madison, Orange, and Spotsylvania have high white infant mortality rates. In all of these last-named counties, with the exception of Madison,

more than 50 per cent of farm operators have gross farm incomes of less than \$600. Lowest per capita incomes among this group are found in Greene and Madison.

4. The counties of the Northern Coastal Plain that are included in the Charlottesville region are King George, Westmoreland, Caroline and part of Spotsylvania. This is an area of general farming, poultry raising and truck gardening. Caroline and Westmoreland have the largest non-white populations in the Charlottesville region—over 45 per cent of the total population. The birth rates in these counties are average. White infant mortality rates are fairly low, except in Spotsylvania; but non-white infant mortality rates are high, particularly in Westmoreland County. Per capita income and rural levels of living are highest in Spotsylvania County.

#### AREA-B-4

This base area covers the large geographical territory of Nelson, Albemarle, Fluvanna, Louisa, Orange, Greene and Madison Counties. Charlottesville has been designated the area center as well as the regional center. In the area live 98,678 persons.

At the present time the two general hospitals in Charlottesville have a capacity of 494 beds (exclusive of beds for psychiatry and tuberculosis). In view of the large territory covered by the area and the fact that it contains a teaching institution the survey indicates a need for a minimum of 6.5 beds per thousand population or a total of 691 beds.

This report has previously proposed the construction of medical service centers in Charlotte Courthouse to demonstrate development of a program correlated with an intermediate area hospital and one in Lawrenceville to demonstrate the development of a medical service center at the same time a new hospital is being constructed in South Hill. In order to have a complete picture it is recommended that a fifteen bed medical service center be established in Louisa and its activities correlated with those of the University Hospital.

The successful establishment of these three centers under varying conditions will demonstrate to planners of regional consultative services their effectiveness in the care of the more rural population.

It is recommended that the remaining 182 beds be allocated to the regional hospital.

#### AREA-I-4

This area, a part of the Charlottesville Region, is composed of Caroline, King George, Westmoreland, Stafford and Spotsylvania Counties. There is a combined county population of 56,867 including Fredericksburg which has been designated as the area hospital center.



The present capacity of the hospital in Fredericksburg is 80 beds. In order to meet the estimated future requirements of the people based upon 4.0 beds per 1,000 population the survey suggests the need for an additional 147 beds.

#### AREA-I-7

This area contains only one county, Rockingham, having a population of 38,830. Harrisonburg has been designated as the area hospital center. The survey shows that approximately 70 per cent of the patients admitted to the Harrisonburg hospital live in the city and surrounding territory of the county. Based on four beds per thousand population the survey suggests a need for a total of 155 beds. Should the construction program develop rapidly both in this State and in West Virginia it is possible that some of the present pressure will be relieved on the hospital in Harrisonburg. However, the present rate of occupancy of this institution suggests the need for a careful review of this situation upon revision of this plan next year. In this way the affect of new construction or additions to institutions in the adjacent areas can be applied to the need for any substantial addition to the institution in Harrisonburg.

#### AREA-I-8

This area is also a part of the Charlottesville Region and contains the counties of Highland and Augusta. Staunton has been designated as the area hospital center. The two counties including the city of Staunton have a combined population of 60,469.

At the present time the population is being served by a 75 bed hospital in Staunton and a hospital of 41 beds in Waynesboro. The survey suggests the need of a total of 242 beds to meet estimated future needs. This will require additional construction of 126 beds. It is recommended that the capacity of the hospital in Waynesboro be increased to 50 beds. The remaining 117 beds are being assigned to Staunton.

This plan does not recommend the establishment of a medical service center in Highland County at the outset. It is thought that sufficient time should be allowed for the establishment of the three experimental centers already referred to in this report and the experience gained therefrom can be applied in other areas where the need might be evidenced.

#### AREA-I-10

Lynchburg has been designated as the area hospital center for the counties of Bedford, Campbell, Amherst and Appomattox. These counties have a combined population of 118,423.

The survey suggests a need for a minimum of five beds per thousand population to meet the estimated future needs. While some of the

hospitals in the area have been operating at a low rate of occupancy others in the area are continually in need of additional space. Some of the patients in the area must come considerable distance for hospital care which is a determining factor in the length of stay.

It is recommended that 89 additional beds be constructed in Lynchburg. With the 376 beds already available this addition would provide a total of 465 beds in four hospitals.

Altavista has an 18 bed hospital which was constructed within the past few years. No immediate additions are recommended although this institution has had a remarkable growth in service since its opening which is evidence of its need to the community.

It is recommended that consideration be given toward the establishment of a 50 bed hospital in Bedford. The merger of the two present hospitals might well afford additional medical services without overlapping functions at a lower unit cost.

#### AREA-R-9

The survey suggests a need for a total of 84 beds to properly serve the needs of this area which is composed of Shenandoah and Page counties. The counties have a combined population of 33,525.

Woodstock has been designated as the area hospital center and its hospital has a capacity of 38 beds. In order to provide hospital facilities within a reasonable distance of all the residents of the area it is recommended that consideration be given toward the establishment of a 50 bed hospital in Luray. The survey only points out the need for 46 beds but no new construction is being planned for less than a 50 bed hospital for under this size it is not thought to be economical. In the construction of this proposed hospital the State Agency can participate in the construction of the 46 beds based on the relative priority of the area.

#### DANVILLE REGION

The Danville Region is the smallest of the hospital regions of the state, consisting of only two counties, Pittsylvania and Halifax, which are located in middle of the first tier of counties on the North Carolina line.

The area is in the tobacco belt. Its principal industries are farming, tobacco marketing and textile manufacturing. It is a predominantly rural area, with only 29.5 per cent of the population living in towns or cities over 2,500. More than half of the farmers are tenants.

The total population in 1945 was 127,870. Of this number, 34.9 per cent were non-white. The only city of more than 10,000 population in the area is Danville. South Boston, in Halifax County, had an estimated population of 5,252 in 1945.

Like the Roanoke Region, the Danville area has many young persons in the population and relatively few older persons. Birth rates

are higher than the state average, though not so high as in the southwest counties.

Infant death rates are close to state averages. The number of births in hospitals is higher in Pittsylvania than in Halifax and considerably higher for whites than for non-whites.

Almost twice as many white deaths occurred in the hospitals in Pittsylvania County as in Halifax. Non-white deaths in hospitals were also more numerous in Pittsylvania, 19 per cent of total non-white deaths, as compared with 13.5 per cent in Halifax.

Per capita income in both counties is below the state average of \$885, \$451 in Halifax and \$697 in Pittsylvania. However, farm operators in the region have higher gross farm incomes than in most of the other sections of the state. Rural levels of living are low according to indices indicating income, social standards, education, size of family and home environment. Rural housing conditions are generally poor.

#### AREA-I-11

Danville has been designated the hospital center for this area and also the regional center for the Danville Region which includes Pittsylvania and Halifax counties.

The area including Danville has a population of 90,366. This area as stated previously has many young persons in its population and relatively few older persons. The rate of occupancy for each of the two white hospitals is exceedingly high. These among other factors indicate that this area can support at least 197 additional general hospital beds. This proposal is based on the eventual consolidation of the Memorial Hospital and the Danville Community Hospital which at the time of the survey was understood to be under consideration. It also suggests the correlation of administrative functions of the Winslow Hospital with those of the Memorial Hospital. In this manner more adequate departmental services, such as radiology and clinical laboratory, might well be made available than those which existed at the time the survey was made. In any expansion program for this area consideration should be given toward providing facilities for additional out-patient clinics which might well be a part of the hospital program.

#### AREA-R-11

Halifax County constitutes this hospital service area which is a portion of the Danville Region. This county has a population of 37,504. Based on the survey and in order to meet the estimated future requirements of the residents a total of 94 general hospital beds are recommended.

South Boston, whose population has grown continuously during the past years, has been designated as the area hospital center. The



present hospital is operating 42 beds and for the year of 1946 its reported rate of occupancy averaged 69.8 per cent. This is somewhat higher than the average for hospitals of its size. It is not felt that the present hospital building can be economically and adequately expanded to meet the evident requirements of the people. Therefore, it is recommended that consideration be given to the construction of a new hospital with a capacity of approximately sixty beds at the outset, so constructed that economical expansion can be attained as the need is indicated by the patient load.

### ROANOKE REGION

The Roanoke region includes an area of 26 counties located in Southwest Virginia, the Blue Ridge Plateau and the lower end of the Shenandoah Valley. It is a mountainous section, the principal industries of which are coal, livestock and timber. While it is not predominantly a tobacco area, parts of Washington and Scott Counties are noted for the production of Burley tobacco. A number of quarries, furniture factories, pulp mills and rayon and other textile plants are also located in the region.

A total population in 1945 was 701,549, of which only 7.7 per cent was non-white. The great majority of the people live in rural areas, 74.8 per cent, as compared to 25.2 per cent in towns and cities of over 2,500 population. Many of those living in rural areas are engaged in non-farm work. It is an area of high population densities, with the exception of three isolated counties - Bath, Craig and Bland - which have fewer than 20 persons per square mile. In the region are three cities having a population of over 10,000: Roanoke, in Roanoke County; Bristol, in Washington County; and Martinsville, in Henry County.

The region has a larger percentage of young people than any other part of Virginia. Birth rates are high in the majority of the counties, although low in Roanoke, Alleghany and Craig counties. White infant mortality rates are higher than in any other region of the state, and there are relatively few births in hospitals.

Per capita income for the region as a whole is low. Roanoke, Alleghany, Montgomery, Pulaski and Tazewell are the only counties in the area with average per capita incomes of over \$700. Rural levels of living are extremely low in the southwest counties but higher in the northern counties of the region.

Although there are several good highways throughout the area, the curving mountain roads increase distance and make travel in some sections difficult in bad weather.

### AREA-B-5

The City of Roanoke has been designated to serve as the area hospital center for this particular area consisting of Roanoke county. It is also the regional hospital center for the Roanoke Region.

Including the City of Roanoke the area has a population 107,048, the population groups being divided approximately as follows: white - 91,655, non-white - 15,393.

At the present time there are six hospitals in this area with a designed capacity of 480 beds, including one allied special hospital of 15 beds. This plan recommends that consideration be given to the construction of a new Negro hospital of approximately 75 beds to replace the existing Burrell Memorial Hospital building. It is felt that a hospital of this size can be staffed and efficiently operated by the present organization.

The geographical expanse that Roanoke is designed to serve together with the size of the population makes it evident that a minimum of 6.5 beds per thousand population will be needed. This, therefore, indicates a need for a total of 695 beds, 436 of which are already in operation and conform to the standards for long range planning. With the recommendation for the construction of a 75 bed hospital to replace the existing Burrell Memorial Hospital, an additional 184 beds would be needed to serve the estimated needs of the white population.

#### **AREA-I-12**

This area is composed of Henry county, and Martinsville has been designated as the area center. Including the City of Martinsville there is a population of 38,558.

The survey suggests a need for a total of 154 general hospital beds, 104 of which are already in operation. This area is fortunate in that they have recently completed their new hospital to which these additional beds might well be added as the need arises.

#### **AREA-I-13**

Clifton Forge has been designated as the intermediate area center for Alleghany County which has a population of 26,071. Covington is an existing hospital community. Based on 4.0 beds per thousand population, this area has sufficient beds to meet its needs. However, the rate of occupancy in the present hospitals indicates that attention should be given to an increased capacity. Should the residents of Craig County (Area R-15) and Botetourt County (Area R-16) align their interests with this area, approximately 42 additional beds would be needed to meet the estimated needs. Being unable to anticipate what effect construction under the West Virginia Hospital Plan might have on this area it is strongly recommended that considerable attention be given the needs of this area upon revision of the plan next year.

#### **AREA-I-14**

Montgomery is the only county in this area and has a population of 33,653. Redford has been designated as the area hospital center and Christiansburg is an existing hospital community.

The two hospitals now being operated in this area have a combined capacity of 93 beds. The survey suggests a need for a total of 152 beds. It is therefore recommended that consideration be given toward the construction of 59 beds in the area center.

#### **AREA-I-15**

As in the case of Montgomery County, Washington is the only county in this intermediate area. The county has a population of 47,349. Abingdon has been designated as the area hospital center.

At the present time the hospitals operating in this area have a combined capacity of 119 beds which conform to a long range hospital construction program. All the beds are being used at an exceedingly high rate of occupancy. The survey suggests and recommends for consideration a total of 189 beds for this area. This can be accomplished by increasing the capacity of the hospital facilities in Bristol to 75 beds and those in Abingdon to 114 beds.

#### **AREA-R-10**

This area includes Rockbridge and Bath counties and has a combined population of 29,988. Lexington has been designated as the area hospital center. Based on 2.5 beds per thousand population the plan suggests a need for a total of 75 beds in this area. It is felt that the construction of a new hospital in Lexington replacing the existing one would, from a long range viewpoint, be most satisfactory and economical. Upon revision of this plan Bath County might well be considered for the construction of a medical service center of sufficient size to care for normal obstetrical patients and other cases whose illnesses were of a minor nature and of short term duration. This is not included in this present plan for as in the case of other areas of the state already mentioned it is felt that sufficient time should be allowed for the establishment of the experimental centers in order that the experience gained therefrom might be applied.

#### **AREA-R-12**

This area includes Dickenson, Buchanan, Tazewell, and Bland and has a population of 95,416. Richlands has been designated as the area hospital center and Grundy is an existing hospital community. The hospitals in Bluefield, West Virginia serve as the intermediate area hospitals for this group of counties.

The survey suggests the need for a minimum of 239 beds to adequately serve the residents of this area. The present hospitals have a combined capacity of 152 beds which conform to a long range planning program. The capacity of the hospitals was decreased as a result of a fire in the Grundy Hospital which occurred during the survey. In order to compensate the shortage of beds in the area, it is recommended that a total of 75 general beds be made available in Grundy and 164 in Richlands.



### AREA-R-13

This area includes the counties of Wise, Scott, and Lee and has a population of 108,288. Hospitals are presently located in Pennington Gap, Appalachia, Coeburn, and Norton. These hospitals have a combined capacity of 174 beds which are thought to be in conformity with a planning and construction program.

Norton has been designated as the area hospital center and the survey suggests the need for an additional 22 beds in this city. The residents of Gate City and Scott County must now rely largely on the hospital facilities in Kingsport, Tennessee. It is recommended that consideration be given toward the establishment of a 75 bed hospital in Gate City which would serve an estimated 35,000 people. This would not then necessitate dependence on out of state hospitals and would establish facilities within a reasonable distance of all the people of this area. The establishment of the hospital in Gate City need not provide overlapping functions or services of the hospitals located in nearby Kingsport but might well serve as a supplement to those already in operation.

### AREA-R-14

This area contains only Giles County with a population of 15,246. Pearisburg has been designated as the area hospital center. The hospital located in this center has 19 beds and at the time of the survey reported a rate of occupancy of 100%. It appears that the best interests of the people would be served through the extension of activities of the present hospital. The survey suggests that 19 additional beds or a total capacity of 38 beds be made available.

### AREAS-R-15 & R-16

Neither the survey nor any subsequent studies indicates the need for the establishment of hospital facilities in either of these areas. Neither did the survey factually establish the inclusion of these counties with any existing hospital service area. Reference is made to a recommendation contained under Area I-13, Roanoke Region, that the two areas might consider the inclusion of their individual medical needs with those of Alleghany County and provide for them through additions to those facilities already established in Alleghany County.

### AREA-R-17

Marion is the area hospital center for Smyth which is the only county in this area. Saltville is an existing hospital community. The hospitals located in Marion and Saltville have a combined capacity of 93 beds. Based on the area population of 27,558 and assuming the construction of additional hospital facilities in adjacent areas, it appears that the immediate needs of this area are already met. The survey did reveal, however, an above normal rate of occupancy in the

Lee Memorial Hospital in Marion. It is anticipated as stated above that this situation will be relieved; however, this situation should come up for review again next year.

### **AREA-R-18**

As in the case of Area R-17 there is only one county in this hospital service area. Wythe County with a population of 21,389 is presently served by hospital facilities in Wytheville, which is the area hospital center. Based on 2.5 beds per thousand population the survey suggests a need for a total of 53 beds. Moreover, the rate of occupancy of the present hospital is below normal for its size attributed in large measure to its relatively short period of operation. The rate of occupancy is however a governing factor in the determination of bed needs. With these considerations in mind a seventeen bed addition is recommended to the present institution which would provide a total of 53 beds as indicated above.

### **AREA-R-19**

Pulaski, a county of 24,053 population constitutes this hospital service area. The city of Pulaski is the area hospital center. At the present time the area hospital has a capacity of 77 beds which seemingly should be a sufficient number to care for the needs of the people. This is a fast growing community and should additional hospital construction in adjacent areas not relieve the existing pressure on the Pulaski Hospital (rate of occupancy-85.6% for 1946) attention should be given in the revision of this plan to additional beds for this area.

### **AREA-R-20**

Galax is the hospital center of this area which is composed of Grayson County. The area has a population of 17,673. A study of this area indicates that a total of 44 beds will be sufficient to meet the estimated requirements. Taking into consideration the existing 39 beds, five additional should be added. The needs for Area R-21 (Carroll County) should be reviewed when the requirements of this area are considered.

### **AREA-R-21**

This area is another that could not factually be identified with an existing hospital area. Being situated geographically near Galax consideration might well be given to the combination of the two counties' interest toward the establishment of a hospital of sufficient size to meet the needs of the combined populations. Should the residents of Carroll County favorably consider this suggestion, a hospital with approximately 75 beds at the outset would be needed. This suggestion is not programmed in this plan but would be considered by the State Agency upon request.

**AREA-R-22**

The survey did not indicate a need for the establishment of hospital facilities in this area. It is recommended that this geographical area identify itself with the hospital service area to which it feels most closely related.

**AREA-R-23**

This area is composed of Franklin County with a population of 22,332. Rocky Mount has been designated as the area hospital center. At the time of the survey it was understood that attention had already been given the establishment of a hospital in this locality. Being within easy reach of consultative services from Roanoke and with sufficient support from several adjacent counties it is felt that a hospital of at least 56 beds can be supported. Should support from adjacent counties be forthcoming the proposed hospital should be designed so as to allow a future capacity of from 75 to 80 beds.

**AREA-R-24**

The survey did not indicate a need for the establishment of hospital facilities in this area. It is recommended that this geographical area identify itself with the hospital service area to which it feels most closely related.

**AREA-R-26**

Russell County situated immediately north of the intermediate area composed of Washington County is the only county in this hospital service area. Lebanon has been designated as the area hospital center. It is felt that 2.5 beds per thousand population will adequately serve the needs of the area. Based on a population of 23,992 this would indicate a need for a total of 60 beds, 25 of which are already in operation.

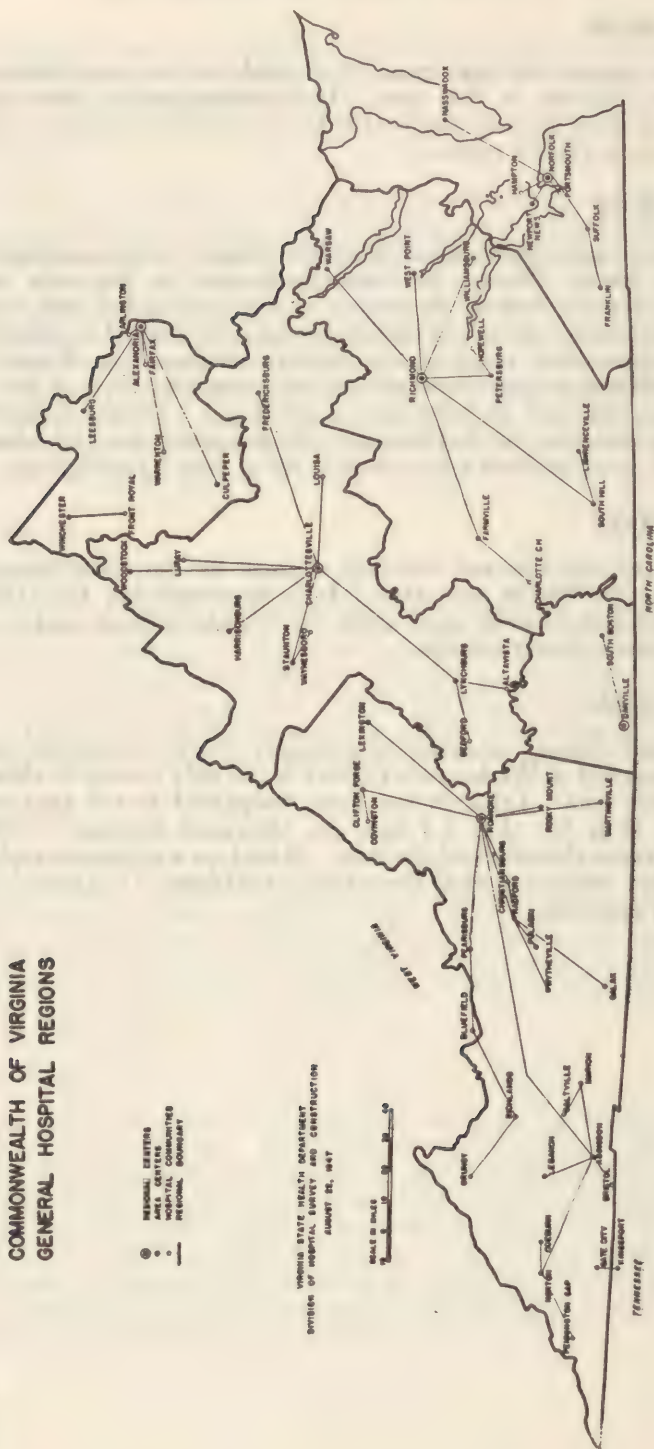


# COMMONWEALTH OF VIRGINIA GENERAL HOSPITAL REGIONS

- REGIONAL CENTERS
- AREA CENTERS
- LOCAL COMMUNITIES
- - - REGIONAL BOUNDARY

VIRGINIA STATE HEALTH DEPARTMENT  
DIVISION OF HOSPITAL SURVEY AND CONSTRUCTION  
AUGUST 22, 1947

SCALE IN MILES  
0 10 20 30 40





## RECOMMENDATIONS FOR THE MENTAL HOSPITALS

(1) It is proposed that the existing hospital facilities of the Eastern State Hospital, Williamsburg, Virginia, be completely abandoned according to a scheduled building program previously developed by the Department of Mental Hygiene and Hospitals. The new hospital is designed to have adequate facilities for the treatment of acute psychiatric patients, and ultimately to have a capacity of 2,500 beds. 958 beds are not completely obsolete.

(2) In the same manner as that proposed for the Eastern State Hospital, it is planned that the present facilities of the Western State Hospital, Staunton, Virginia, be abandoned in favor of an entire new physical plant, to include adequate space for the treatment of acute psychiatric patients, together with the necessary reception and ward buildings, and adjunct service facilities. The new hospital ultimately will have a designed capacity of 2,500 beds. 585 beds are not completely obsolete.

(3) It is proposed that in accordance with a plan already established by the Department of Mental Hygiene and Hospitals, that construction at Southwestern State Hospital, Marion, Virginia, will involve the erection of a new reception building, a substantial addition to the present building for the criminal insane, and replacement of existing outmoded buildings. It is suggested that new construction bring the designed capacity of the institution up to a future designed capacity of 2,000 beds.

(4) It is proposed, in accordance with plans already developed by the Department of Mental Hygiene and Hospitals, that the Central State Hospital, Petersburg, Virginia, construct a building for the criminal insane, also adequate facilities for the tuberculosis patients, in addition to the renovation of existing buildings, plus additional ward buildings, to bring the designed future capacity to 4,500 beds.

(5) Although the site is undetermined at the present time, it is proposed that a hospital for the treatment of alcoholics be constructed with a capacity of approximately 400 beds. The site should be determined by the Department of Mental Hygiene and Hospitals, however, it is suggested that the activities of this proposed institution be correlated with those of one of the two State medical schools.

(6) It is proposed that five 50-bed psychiatric units for the treatment of acute alcoholic, nervous and mental patients be built and correlated with the activities of existing general hospitals. It is suggested that the Department of Mental Hygiene and Hospitals be the sponsoring agency for these units, but that they be operated and staffed by general hospitals with whom their activities are correlated. It is further recommended that these units be placed in the following cities or locations: Norfolk, Roanoke, Charlottesville, Richmond, and Northern Virginia.

(7) There remains within the Plan a total of 1,445 beds not assigned for construction at this time, but which will be scheduled and assigned at a future date upon revision of this Plan.



## **POLICY FOR DETERMINING NON-CONFORMING TUBERCULOSIS SANATORIA BEDS**

In the general hospital classification, a policy has been determined whereby beds are classified as being suitable or unsuitable to determine the need for the construction program. In general hospitals, those having less than 15 beds have been designated as being unsuitable inasmuch as they usually do not have sufficient space for the diversification of their services. In addition, unsuitable beds have been designated where they appear in hospitals whose present building is structurally unsound for either vertical or horizontal additions.

For tuberculosis sanatoria it is thought the same approach might well be used in classifying beds as suitable or unsuitable. In this connection it seems desirable to incorporate the ideas of the superintendents of the various tuberculosis sanatoria regarding the need of the sanatoria in a general way prior to the publication of the Plan. It was the consensus of those present at a meeting on July 10, 1947, that all sanatoria would accept the condition that useable buildings were those which could sustain either vertical or horizontal additions. This decision has been made known to the various representatives of sanatoria not present at the meeting, and they are in accord. In accepting this condition for determining the suitability of beds, it was pointed out that the program was to be considered as a long-range plan, looking forward to the gradual replacement of the facilities now in use but outmoded, and the addition of facilities where needed.

## **RECOMMENDATIONS FOR TUBERCULOSIS SANATORIA**

The report of the Commissioner of Health concerning the acquisition of Woodrow Wilson Hospital for use as a tuberculosis sanatorium includes a statement which may be regarded as the policy of the State Department of Health in the distribution of tuberculosis beds. This statement appearing on Page 8 of the Report is as follows: "For these reasons, in tuberculosis hospital expansion, sites of new buildings should be located near the areas where the disease is concentrated and adjacent to the large medical centers of the State, as far as practicable." In planning for additional facilities for the tuberculosis sanatoria, we have been cognizant of this policy, and have based our planning thereon.

(1) The Blue Ridge Sanatorium, located in Charlottesville, which has a designed capacity of 370 beds, is programmed for a future capacity of 495 beds. This would create the need for the construction of an additional 228 beds, when one takes into consideration the 103 existing beds which have been scheduled as in need of immediate replacement. The future capacity as related above would be exclusive of the Children's Building. Inasmuch as the institution is presently owned by the Commonwealth of Virginia, and operated by the State Board of Health, this agency would be the sponsor.

(2) The Catawba Sanatorium, located in Roanoke County, has a present capacity of 400 beds. Its future capacity is programmed to be 500 beds, which would necessitate the construction of 200 additional beds, insomuch as 100 of its existing beds have been determined as in need of immediate replacement. As in the case of the Blue Ridge Sanatorium, the State Board of Health would be the sponsor.

(3) The Piedmont Sanatorium, located in Burkeville, has a designated capacity of 269 beds, 97 of these beds are in need of immediate replacement, and the future capacity of the hospital is being programmed for a total of 322 beds. The available water supply is not sufficient to meet additional expansion, therefore, it was deemed wise to limit the size of this institution to the capacity as herein above related. As in the case of Blue Ridge and Catawba Sanatoria, the State Board of Health would be the sponsor.

(4) The Pine Camp Hospital, owned and operated by the City of Richmond, can at present accomodate 220 patients. In consultation with the Director of the hospital and the Assistant Director of Public Health, and in view of the policy for determining suitable beds, it was found that 120 beds of this institution were in need of immediate replacement. It is suggested that the capacity of this institution be increased to 320 beds, making available an additional 100 beds for the care of white patients of the area on some contractual basis with the localities. The placing of the additional 100 beds in this vicinity would be in conformity with the policy set forth above, and as evidenced by the attached map which illustrates the areas in need of additional facilities. By creating this addition, rather than constructing a new institution, the economies derived therefrom will make this recommendation worth while.

(5) There is a distinct correlation between the deaths occurring from tuberculosis in any area, and the need for additional beds within a given area. The attached map, showing the areas of the State which receive full sanatorium services and those areas for which service has been authorized, illustrates the need for additional tuberculosis facilities for negro patients immediately north and south of Richmond. In view of this fact, and conforming with the policy already established by the Health Department, a 500 bed negro sanatorium is recommended for the Richmond area, as indicated on the attached map.

(6) The Charles R. Grandy Sanatorium, owned and operated by the City of Norfolk, has a designed capacity of 165 beds. It should be noted, however, that all these beds are not presently being operated, as some occur in cottages which have been diverted to house personnel. As in the case of the recommendation for the expansion of the Pine Camp Hospital in Richmond, it is proposed that the future capacity of this institution be 265 beds, which would be an increase of 100 beds, and replacement of 135 existing beds. It is recommended that consideration be given to using these additional facilities for the care of residents of the area on some contractual basis with the localities from which they come.

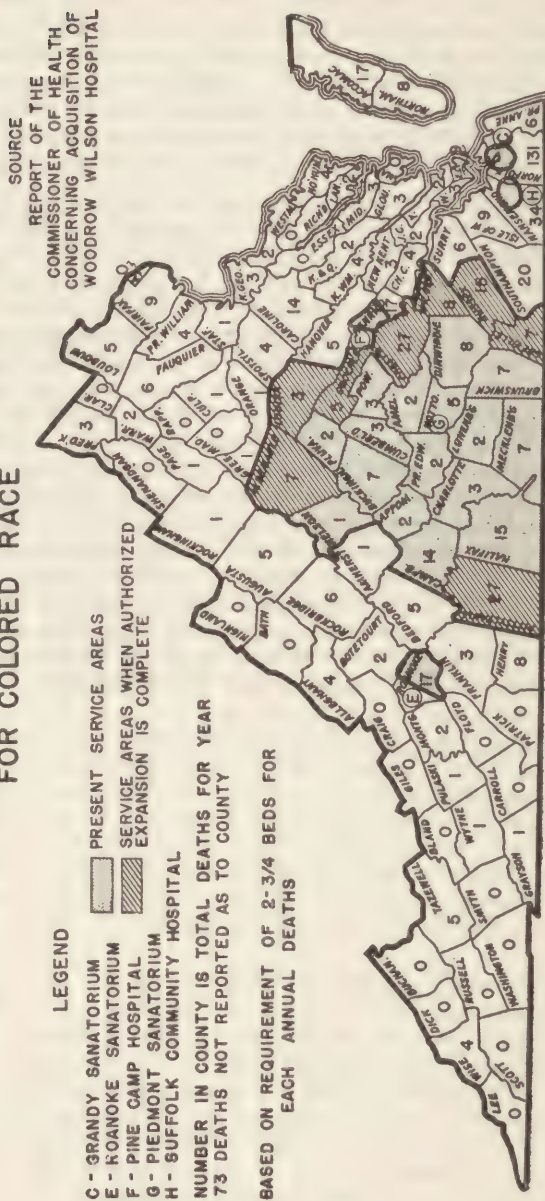
(7) It is proposed that 50-bed tuberculosis units be built and their activities correlated with existing area hospitals in Northern Virginia, Norfolk, Richmond, Danville, and Roanoke. These units might well be constructed under the auspices of the State Health Department, but staffed and operated by the general hospitals to which their activities become related. Beds in these proposed sections of the general hospitals should be so designed that, in addition to caring for the tubercular patient in need of surgery, or in other acute condition, they would be available for other communicable disease patients.

Based upon the annual average number of tuberculosis deaths in the State for the period of 1940-44 inclusive (1494.8 deaths), on the basis set by the USPHS for determining the need of tuberculosis beds, (2.5 times the average annual number of deaths for the period 1940-44), the total beds allowed under this ratio would be 3737. The Survey indicates that there are presently 920 suitable tuberculosis beds in the State, which would require a net additional bed need of 2817. There has been a sharp decline in the death rate from tuberculosis beginning 1943 and continuing to date, which for Virginia would reflect a lower bed need than actually estimated on USPHS standards. As no increase in the death rate is anticipated by competent authorities, we have programmed, but not assigned, 1,034 beds. It is thought that with the continuing decrease in the number of tuberculosis deaths, we are approaching a time when the total number of present tuberculosis beds will no longer be needed, and that a portion of them can be released for the care of other illnesses, particularly those of the higher age groups which generally necessitate long-term care. In this connection a further statement will be made in the programming and assignment of chronic disease beds for the State.



MAP 34

**COMMONWEALTH OF VIRGINIA**  
**DEATHS FROM TUBERCULOSIS BY COUNTIES IN 1943**  
**AND**  
**AREAS THAT COULD NOW RECEIVE FULL SANATORIUM SERVICE**  
**FOR COLORED RACE**



## RECOMMENDATIONS FOR CHRONIC DISEASE HOSPITALS

The establishment of chronic disease hospitals in Virginia will be a new experience for many people. It is recommended that those charged with their planning and operation approach the problem with caution.

It is possible that with the declining death rate in tuberculosis a number of beds now assigned for tuberculosis care will no longer be needed. These beds might well then be used for the treatment of the chronic diseases.

Consideration should also be given to the location of these institutions in areas where the greatest demand is present. Patients admitted to these hospitals will no doubt be from the higher age groups. Further, as the longevity of life increases there will be an increasing demand for this type of institution.

Previous chapters in this report refer to areas by age group and this information may be used in the determination of suitable locations. Where the density of the group does not suggest a separate hospital, pavilions in general hospitals specifically assigned will suffice.

This plan recommends immediate construction of two-two hundred bed chronic disease hospitals, one located in Richmond and the other in Charlottesville. It is believed that the success of these institutions can best be measured with the extent to which their activities are correlated with those of the two teaching hospitals. When this experience can be shown, it is felt then is the time to establish other hospitals or pavilions in general hospitals for the care of these patients.

## RECOMMENDATIONS FOR PUBLIC HEALTH CENTERS

The majority of this section of the report was planned and written by the staff of the Bureau of Local Health Services of the State Health Department.

Wherein health centers are programmed for the same area as that for new hospital construction or major hospital expansion it is strongly urged that consideration be directed to having the health center a part of the physical plant of the hospital wherever possible. This will not only eliminate the duplication of facilities such as x-ray and laboratories but will in effect provide the area to be served with truly a **medical center**.

It would hardly be possible to describe adequately the proposed size of the health center or the equipment to be included for the areas of the state included in the following recommendations. Studies of

local conditions and further consultation with the Bureau of Local Health Services should take place prior to any area submitting its application for construction.

There follows a grouping of the health districts, or counties, or independent cities according to immediate need and without regard to the availability of local funds:

### GROUP 1

Loudoun  
Brunswick, Greenville, Mecklenburg  
Buchanan, Tazewell  
Fairfax  
Fauquier, Prince William, Stafford  
Halifax  
Hanover, Caroline  
Norfolk County  
Sussex, Prince George, Dinwiddie  
Amherst, Nelson  
Norfolk City  
Petersburg City  
Elizabeth City, Warwick  
James City, Charles City, New Kent, York

### GROUP 2

Albemarle, Charlottesville  
Alleghany, Botetourt  
Isle of Wight, Nansemond, Suffolk  
Page, Warren, Shenandoah  
Russell, Wise  
Smyth, Washington, Bristol  
Westmoreland, Richmond, Lancaster and Northumberland

### GROUP 3

Augusta  
Accomack, Northampton  
Orange, Culpeper  
Princess Anne  
Pulaski, Wythe  
Rockingham  
Rockbridge  
Buckingham, Cumberland, Nottoway and Prince Edward  
Dickenson  
Scott  
Richmond City  
Roanoke City  
Lynchburg City  
Danville City



**GROUP 4**

Henrico  
Grayson  
Franklin  
Bedford  
Pittsylvania  
Appomattox

As the following map will show a number of the counties are not included in the recommendations for health center construction in the initial stages of the program. As has been explained in previous pages the hospital problem of the Winchester area will be restudied and the remoteness of Bath and Highland counties strongly suggests the need for the establishment of medical service centers after experience has been gained from the experimental medical service centers already proposed.



## ESTABLISHMENT OF PRIORITIES FOR GENERAL HOSPITAL AREAS

Under the provisions of the Hill-Burton Act the Commonwealth of Virginia will receive 2,209,800 dollars annually for five years beginning with the fiscal year 1947-48 as its share of the federal aid program for the construction of hospitals. Thus approximately 11 million dollars of federal monies will be available to be matched by local and/or state funds on a 2-to-1 basis. The full utilization of the federal allotment during the five year period will encompass a 33 million dollar hospital construction program within the state during that time.

The federal grant-in-aid funds may be used for the construction of general, mental, tuberculosis, and chronic hospitals, and for public health centers. However, in keeping with the fundamental thesis of the Hill-Burton Act, emphasis will undoubtedly be placed upon the building of general hospitals and a large proportion of the funds will be allotted for such projects.

These funds, including the local matching funds, even if used entirely for the construction of general hospital beds, would be sufficient to build, at current price levels, only 40-45 per cent of the 5,900 additional general beds needed in Virginia. Hence in order to provide facilities in the areas of greatest need a system of priorities has been established. Under this system the highest priority is assigned to those hospital areas with the lowest per cent of met need. In this classification, it follows that the newly created hospital areas (those areas without existent facilities), and those areas whose present facilities are unsuitable or unacceptable, will be among the highest in priority. Two other important factors influence the need for additional hospital beds. They are the population of the area to be served and the utilization of the existing hospital or hospitals in the area as determined by the reported per cent of occupancy.

A careful analysis of Table 42 will show the method used in determining the priority standing of specific areas. Four classes of priorities were established: A, B, C, and D. The hospital area designation and location of the hospital center for the area appear in the Columns 1 and 2 entitled AREA and LOCATION respectively. In the Column 3, POPULATION, is listed the population of the area as of July 1, 1945 as reported by the Bureau of The Census of the Department of Commerce and the Bureau of Vital Statistics of the State Health Department. The total number of suitable beds as defined earlier in this report existing in the area is given in the Column 4 titled ACCEPTABLE BEDS. Column 5, PER CENT OF MET NEEDS, is determined by dividing the number of acceptable beds by the number of beds needed for the area including both those currently in operation and those programmed for future construction. To illustrate, 960 beds are needed in the Alexandria Area (I-5) of the Northern Virginia Region (This figure was obtained from the narrative of the report



and does not appear in Table 42). At the present time there are 306 acceptable beds in operation, indicating that 31.88 per cent of needs are being met.

Column 6, **REPORTED PER CENT OF OCCUPANCY**, shows the per cent of occupancy of all general hospital beds in each specific hospital area. In Column 7, **STANDARD NORMAL OCCUPANCY**, an occupancy of 60 per cent was determined as the standard occupancy for Rural areas, and 70 per cent as the standard occupancy for both Base and Intermediate areas. These standards are in close agreement with the occupancy rate regarded by hospital authorities as permitting efficient operation of the hospital. The next column, Column 8, shows the difference by hospital service area in the reported per cent of occupancy and the standard normal per cent of occupancy for the type of hospital area.

In the Column 9 is given the relative priority points for each hospital area. These points are determined by adding in inverse fashion the per cent of needs met to the difference between the reported per cent of occupancy and the standard per cent of occupancy for the type of area. It is the inverse sum of Column 5 and Column 8. Thus an area in which the per cent of needs met is relatively low and in which the per cent of occupancy is high in relation to the standard rate of occupancy, has a higher rate of priority than an area in which the per cent of needs is relatively high and the per cent of occupancy is low in relation to the standard per cent of occupancy. In other words, an area with a small number of beds utilized at a high rate is regarded as having a greater need for opportunity to participate in the Hill-Burton program than an area in which there are a large number of beds (in proportion to the population) utilized at a low rate.

Column 10, **RELATIVE PRIORITY AFTER ADJUSTMENT**, lists the priority ranking of the hospital service areas according to the priority points given in the preceding column. Hospital areas with the lower points are assigned the higher priorities, for as pointed out above, the smaller the number of priority points the greater the need for additional general hospital beds in the area.

Following the principles set forth in the Hill-Burton Act all areas in the A priority group have the same priority, as all areas are either without general hospital facilities entirely or have such facilities in a negligible amount. In the B, C, and D priority groups the hospital areas are arranged in order of needed additional general hospital beds as determined by the application of the formula described above.

### **Application of Priority Formula to Area I-9**

Area I-9 (Column 1) appears at the head of the B priority group. Reference to the map showing the General Hospital Service Areas reveals that Farmville (Column 2) has been designated as the hospital center (location of the principal hospital for the area) to serve Buckingham, Cumberland, Prince Edward, Charlotte, Lunenburg, and

Nottoway Counties. This area is in the Richmond Region. The population of this area is 74,932 (Column 3) and an analysis of the situation suggests that a total of 300 general hospital beds ultimately will be needed to provide adequate facilities. With 63 acceptable beds (Column 4) existing in the Southside Community Hospital in Farmville this area has a met need of 21.00 per cent (Column 5). The hospital survey indicated that the area had an abnormally high rate of utilization of existing facilities, an occupancy rate of 89 per cent (Column 6) as compared with the standard normal rate for an Intermediate Area of 70 per cent (Column 7). By subtracting the standard normal rate from the actual rate of occupancy, the area is 19 points above the standard normal occupancy (Column 8). Adding these 19 per centage points to the per cent of met needs (21.00) inversely gives a priority point score of 2.00 (Column 9). Since this score is the lowest outside areas in which there are no existent general hospital facilities or the facilities are negligible, Area I-9 is lower than all other areas in the state and was placed at the top of the B priority group (Column 10).

### Group E

In group E, titled Unassigned, are six areas, all rural, which could not be factually identified with a present or proposed hospital area. Neither the size of the area or the density of population suggests the need for general hospital facilities. It is proposed, therefore, that these six areas be given the prerogative of choosing the area to which they themselves feel most closely associated. This will in turn necessitate an adjustment upward in the priority of the associated area.

### Location

The title LOCATION (Column 2) on Table 42 designated the city or town in which under this plan, the principal hospital exists or will be constructed. This does not preclude the construction of, or additions to, hospitals in other cities or towns within the hospital area. Reference to the section of this chapter titled "Recommendations For General Hospitals" will further clarify this explanation. The same priority applies to the whole area whether carried under Column 2 or not.

**TABLE XLII**  
**PRIORITY IN CATEGORY OF GENERAL HOSPITALS MET NEED ADJUSTED BY UTILIZATION**  
**OF EXISTING FACILITIES**

| P<br>R<br>I<br>O<br>R<br>I<br>T<br>Y | 1    | 2              | 3          | 4                  | 5                                  | 6                                       | 7                                                     | 8                                                                | 9                         | 10                                          |
|--------------------------------------|------|----------------|------------|--------------------|------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------------------------------------------------------|---------------------------|---------------------------------------------|
|                                      | Area | Location       | Population | Acceptable<br>Beds | Per Cent<br>of Met<br>Needs<br>(A) | Reported<br>Per Cent<br>of<br>Occupancy | Standard<br>Normal<br>Occupancy<br>R=60%<br>I & B=70% | Difference<br>Standard<br>Normal<br>and<br>Reported<br>Occupancy | Priority<br>Points<br>(B) | Relative<br>Priority<br>After<br>Adjustment |
| A                                    | R-25 | South Hill     | 61952      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | I-1  | Suffolk        | 47705      | 0                  | 0.00                               | 0.00                                    | 70%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-7  | Culpeper       | 37908      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-11 | South Boston   | 37504      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-3  | West Point     | 36602      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-10 | Lexington      | 29988      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-4  | Warsaw         | 28360      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | R-23 | Rocky Mount    | 22332      | 0                  | 0.00                               | 0.00                                    | 60%                                                   | 0                                                                | 0                         | 1                                           |
|                                      | I-3  | Petersburg     | 87776      | 19                 | 5.41                               | 85.00                                   | 70%                                                   | 15.00                                                            | 0                         | 1                                           |
|                                      | I-9  | Farmville      | 74932      | 63                 | 21.00                              | 89.00                                   | 70%                                                   | 19.00                                                            | 2.00                      | 2                                           |
| B                                    | R-14 | Pearisburg     | 1 246      | 19                 | 50.00                              | 100.00                                  | 60%                                                   | 40.00                                                            | 10.00                     | 3                                           |
|                                      | I-5  | Alexandria     | 198228     | 306                | 31.88                              | 85.22                                   | 70%                                                   | 15.22                                                            | 16.66                     | 4                                           |
|                                      | I-15 | Abingdon       | 47349      | 119                | 62.96                              | 102.92                                  | 70%                                                   | 32.92                                                            | 30.04                     | 5                                           |
|                                      | I-4  | Fredericksburg | 56867      | 80                 | 35.24                              | 73.73                                   | 70%                                                   | 3.00                                                             | 32.24                     | 6                                           |
|                                      | B-5  | Roanoke        | 107048     | 436                | 62.73                              | 97.26                                   | 70%                                                   | 27.26                                                            | 35.47                     | 7                                           |
|                                      | I-11 | Danville       | 90366      | 208                | 51.36                              | 81.48                                   | 70%                                                   | 11.48                                                            | 39.88                     | 8                                           |
|                                      | R-5  | Nassawadox     | 45562      | 71                 | 62.28                              | 80.00                                   | 60%                                                   | 20.00                                                            | 42.28                     | 9                                           |
|                                      | R-26 | Lebanon        | 23992      | 25                 | 41.67                              | 59.00                                   | 60%                                                   | - 1.00                                                           | 42.67                     | 10                                          |
|                                      | B-2  | Richmond       | 331253     | 1408               | 65.39                              | 91.33                                   | 70%                                                   | 21.33                                                            | 44.06                     | 11                                          |
|                                      | I-14 | Radford        | 33653      | 93                 | 61.18                              | 84.72                                   | 70%                                                   | 14.72                                                            | 46.46                     | 12                                          |
|                                      | R-12 | Richlands      | 95416      | 152                | 63.60                              | 75.24                                   | 60%                                                   | 15.24                                                            | 48.36                     | 13                                          |
|                                      | R-9  | Woodstock      | 33525      | 38                 | 45.24                              | 56.30                                   | 60%                                                   | - 3.70                                                           | 48.94                     | 14                                          |

(A) Existing acceptable beds divided by determined need.

(B) Adjust "% of Met Need" inversely by differential between normal occupancy and actual occupancy.



TABLE XLII—Continued

| P<br>R<br>I<br>O<br>R<br>I<br>T<br>Y | 1<br><br>Area | 2<br><br>Location | 3<br><br>Population | 4<br><br>Acceptable<br>Beds | 5<br><br>Per Cent<br>of Met<br>Needs<br>(A) | 6<br><br>Reported<br>Per Cent<br>of<br>Occupancy | 7<br><br>Standard<br>Normal<br>Occupancy<br>R=60%<br>I & B=70% | 8<br><br>Difference<br>Standard<br>Normal<br>and<br>Reported<br>Occupancy | 9<br><br>Priority<br>Points<br>(B) | 10<br><br>Relative<br>Priority<br>After<br>Adjustment |
|--------------------------------------|---------------|-------------------|---------------------|-----------------------------|---------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------|
| C                                    | I-8           | Staunton          | 60469               | 116                         | 47.93                                       | 67.85                                            | 70%                                                            | - 2.15                                                                    | 50.08                              | 15                                                    |
|                                      | I-6           | Winchester        | 44346               | 160                         | 78.82                                       | 95.86                                            | 70%                                                            | 25.86                                                                     | 52.96                              | 16                                                    |
|                                      | B-1           | Norfolk           | 364182              | 1233                        | 52.09                                       | 67.6                                             | 70%                                                            | - 2.40                                                                    | 54.49                              | 17                                                    |
|                                      | R-8           | Leesburg          | 18937               | 26                          | 55.32                                       | 60.00                                            | 60%                                                            | 0.00                                                                      | 55.32                              | 18                                                    |
|                                      | R-2           | Williamsburg      | 17844               | 18                          | 40.00                                       | 43.60                                            | 60%                                                            | -16.40                                                                    | 56.40                              | 19                                                    |
|                                      | I-7           | Harrisonburg      | 38830               | 136                         | 87.74                                       | 99.8                                             | 70%                                                            | 29.8                                                                      | 57.94                              | 20                                                    |
|                                      | B-4           | Charlottesville   | 98678               | 494                         | 71.49                                       | 81.55                                            | 70%                                                            | 11.55                                                                     | 59.94                              | 21                                                    |
|                                      | R-1           | Franklin          | 24853               | 51                          | 82.25                                       | 77.7                                             | 60%                                                            | 17.7                                                                      | 64.55                              | 22                                                    |
| D                                    | R-13          | Norton            | 108288              | 174                         | 64.21                                       | 57.76                                            | 60%                                                            | - 2.23                                                                    | 66.44                              | 23                                                    |
|                                      | I-12          | Martinsville      | 38558               | 104                         | 67.53                                       | 70.00                                            | 70%                                                            | 0.00                                                                      | 67.53                              | 24                                                    |
|                                      | I-10          | Lynchburg         | 118423              | 394                         | 75.80                                       | 74.98                                            | 70%                                                            | 4.98                                                                      | 70.82                              | 25                                                    |
|                                      | R-19          | Pulaski           | 24043               | 77                          | 100.00                                      | 85.6                                             | 60%                                                            | 25.60                                                                     | 74.40                              | 26                                                    |
|                                      | R-18          | Wytheville        | 21389               | 96                          | 67.92                                       | 48.00                                            | 60%                                                            | -12.00                                                                    | 79.92                              | 27                                                    |
|                                      | R-17          | Marion            | 27558               | 33                          | 100.00                                      | 78.36                                            | 60%                                                            | 18.36                                                                     | 81.64                              | 28                                                    |
|                                      | I-13          | Clifton Forge     | 26071               | 165                         | 100.00                                      | 85.26                                            | 70%                                                            | 15.26                                                                     | 84.74                              | 29                                                    |
|                                      | I-2           | Newport News      | 137963              | 517                         | 93.65                                       | 66.87                                            | 70%                                                            | - 3.13                                                                    | 96.78                              | 30                                                    |
| E                                    | R-20          | Galax             | 17673               | 39                          | 88.64                                       | 38.00                                            | 60%                                                            | -22.00                                                                    | 110.64                             | 31                                                    |
|                                      | R-6           | Unassigned        | 15664               | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      | R-16          | Unassigned        | 13551               | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      | R-24          | Unassigned        | 13103               | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      | R-22          | Unassigned        | 10968               | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      | R-15          | Unassigned        | 3214                | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      | R-21          | Unassigned        | 22109               | 0                           | 0                                           | 0                                                | 0                                                              | 0                                                                         | 0                                  | .....                                                 |
|                                      |               |                   |                     |                             |                                             |                                                  |                                                                |                                                                           |                                    | .....                                                 |

(A) Existing acceptable beds divided by determined need.

(B) Adjust "% of Met Need" inversely by differential between normal occupancy and actual occupancy.

### SUMMARY STATEMENT

The principles embodied in the Hill-Burton Act recognize the need for additional hospital facilities, particularly in rural areas. Such facilities mean not only better hospital care but also better medical care. The Act also recognizes the principle of local determination and control. Through grants-in-aid handled by an officially designated state agency, local communities have the right to determine whether they will build a hospital or not and to control the administration of the hospital if and when constructed.

Through legislative action of the Virginia General Assembly, the Commonwealth of Virginia will participate in the benefits of the Hill-Burton program. Although the federal aid program is designed for five years, the Virginia Hospital Survey Plan has been conceived to meet the needs of the people over the period of the next 15 to 20 years. Each year the state plan will be revised to meet changing conditions. New population estimates will be available, hospitals will be built, hospital utilization will fluctuate, and other changing conditions come into being which may raise or lower the priorities of the hospital areas as set forth in this plan. It is expected, however, that the same basic principles will be taken into consideration in each revision of the state program.















